

STATE OF VERMONT

SUPERIOR COURT  
WASHINGTON UNIT

CIVIL DIVISION

Docket No. \_\_\_\_\_

STATE OF VERMONT,

Plaintiff,

v.

VOLKSWAGEN AKTIENGESELLSCHAFT, a/k/a )  
VOLKSWAGEN AG; VOLKSWAGEN GROUP OF )  
AMERICA, INC.; VOLKSWAGEN GROUP OF )  
AMERICA; CHATTANOOGA OPERATIONS, )  
LLC; AUDI AKTIENGESELLSCHAFT a/k/a )  
AUDI AG; AUDI OF AMERICA, LLC; )  
DR. ING. H.C.F. PORSCHE )  
AKTIENGESELLSCHAFT a/k/a PORSCHE AG; )  
and PORSCHE CARS NORTH )  
AMERICA, INC., )

Defendants.

536-9-16 Wncv.

2016 SEP - 8 A 11:00

COMPLAINT



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## **COMPLAINT**

The State of Vermont brings this action against the above-named defendants (collectively referred to herein as “Defendants”) for multiple violations of the Vermont Consumer Protection Act, Chapter 63, Title 9, Vermont Statutes Annotated; and Vermont Air Pollution Control statutes and regulations, Chapter 23, Title 10, Vermont Statutes Annotated and Subchapter XI, Vermont Air Pollution Control Regulations.

Over the course of eight years, Defendants deceived consumers and regulators by producing diesel passenger vehicles that they falsely marketed as environmentally friendly, when in reality the vehicles contain software to trick emissions tests. The State of Vermont seeks civil penalties, injunctive relief, restitution, disgorgement, fees, costs, and other appropriate relief.

### **I. SUMMARY**

1. Between 2008 and 2015, Defendants designed, produced, advertised, sold and leased 16 models of passenger diesel vehicles equipped with illegal software which allowed the vehicles to circumvent air pollution control laws (“Unlawful Vehicles”). See Table 1 below for a complete list of Unlawful Vehicles. For reference, an index of defined terms as used herein is attached as Appendix 1.

2. This software is commonly known as a defeat device or a cycle beater (“Defeat Device”). A Defeat Device detects when a vehicle is undergoing emissions testing as opposed to when it is being driven normally. During emissions testing, the Defeat Device activates the vehicle’s emissions controls so that the vehicle complies with emissions standards. When the vehicle is being driven normally during non-test conditions, however, the Defeat Device deactivates the legally required emissions controls, causing the vehicle to emit unlawful levels of nitrogen oxides (NOx), a family of harmful pollutants. According to the United States Environmental Protection Agency (“EPA”), these Defeat Device-equipped vehicles emit levels of NOx up to 40 times the legal limit. The vehicles’ test results, however, always falsely show that their emissions control systems are lawful and functioning properly.

3. Defendants publicly admitted that they installed illegal Defeat Devices in nearly 600,000 vehicles sold in the United States. Approximately 3,400 of these vehicles are currently registered in Vermont and continue to emit unlawful levels of NOx. From June 2009 to June 2015, Vermont drivers registered the second highest per capita number of Unlawful Vehicles in the United States.<sup>1</sup>

4. Defendants’ internal communications show that they knew their use of the Defeat Device was unlawful, that they took measures to continue to deny its existence, and that they actively misled regulators even after independent on-road emissions testing showed that their vehicles emitted unlawful levels of NOx when

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<sup>1</sup> Gates, Guilbert et al., *Explaining Volkswagen’s Emissions Scandal*, N.Y. Times, Updated July 19, 2016, <http://www.nytimes.com/interactive/2015/business/international/vw-diesel-emissions-scandal-explained.html>



driven on the road. In 2014, Defendants submitted to regulators a proposed software recall, assuring regulators it “would optimize” the vehicles’ emissions. They knew, however, that the sham recall would not bring the Unlawful Vehicles into compliance.

5. In order to sell or lease vehicles in Vermont, Defendants falsely certified to consumers as well as state and federal regulators that their vehicles conformed to California Air Resources Board (“CARB”) NO<sub>x</sub> emissions requirements, which are incorporated into Vermont law under the Vermont Air Pollution Control Regulations.

6. Defendants’ deceptions permitted them to obtain federal and state certifications required to sell vehicles in Vermont, and undeserved premium prices from consumers for the Unlawful Vehicles.

7. As part of carrying out this eight-year fraud upon regulators and consumers, Defendants launched widespread, targeted marketing campaigns aimed at convincing consumers that their vehicles were the number one choice for environmentally conscious drivers and superior to gas/electric hybrids and other transportation choices. Defendants falsely promised consumers a “clean” diesel car that was higher performing and more fuel efficient than non-diesel competitor vehicles.

8. Through online and print media, Defendants falsely associated their brands with clean diesel technology innovation through statements such as “Clean Diesel. Like really clean diesel,” and “Di\*sel: it’s no longer a dirty word.” One ad



states, "Diesel has really cleaned up its act. Find out how clean diesel technology impacts fuel efficiency and performance, while also being a more eco-conscious choice." A popular video ad campaign posted in 2015 called "Old Wives' Tales" featured a character who places her scarf against the tailpipe of an Unlawful Vehicle and exclaims "see how clean it is!" Data shows that the Old Wives' Tales videos were viewed more than 20 million times.

9. Defendants also used false test data to promote their vehicles. For example, in an August 25, 2013, press release advertising the 2014 Volkswagen Toureg, Defendants falsely stated that "[t]o achieve its 50 state emissions qualification, a deNOx catalytic converter, augmented by a special injection system ... helps reduce NOx emissions by up to 90 percent."

10. The marketing for the Unlawful Vehicles was some of the most widely-viewed advertising ever aired. An Audi of America media communication dated January 8, 2010, described its upcoming Superbowl ad by stating "This year, Audi will demonstrate its leadership position within the luxury segment with a brand spot that delivers the message that being environmentally conscious might not be easy, but the Audi A3 TDI clean diesel is now a proven environmental solution." The communication also noted that the Audi A3 received *Green Car Journal's* 2010 "Green Car of the Year" award and that this award was "a true validation of the quality and environmentally sound elements of [the car's] technology." Viewer data from the Superbowl ad shows that, at the time, it was the second most-viewed commercial in U.S. history with 115.6 million viewers.

11. Only in September 2015, when regulators denied certification of model year 2016 vehicles making them illegal for sale in the U.S., did Defendants finally admit to the existence and installation of the Defeat Devices.

12. By the conduct described in this Complaint, Defendants have violated the unfair and deceptive practices provisions of the Vermont Consumer Protection Act and Vermont Air Pollution Control statutes and regulations. Through this action, the State seeks to protect the interests of consumers, public health, and the environment and requests injunctive relief, civil penalties, restitution, disgorgement of profits, fees, costs and other appropriate relief.

## II. PARTIES

13. Plaintiff State of Vermont, appears by and through the Vermont Attorney General who is the chief law enforcement officer of the State and authorized to bring this action pursuant to 3 V.S.A. §§ 152, 157, and 10 V.S.A. § 8221. This action is brought on behalf of the State, Vermont consumers and the Vermont Agency of Natural Resources ("ANR").

14. ANR is an agency of the State with the powers and duties set forth in the Vermont air pollution control statutes, 10 V.S.A. §§ 551-585, (Air Pollution Control Statutes") and maintains its principal offices in Montpelier, Vermont.

15. Defendant Volkswagen Aktiengesellschaft a/k/a Volkswagen AG ("VW AG") is a corporation organized under the laws of Germany and has its principal place of business in Wolfsburg, Germany. At all relevant times, VW AG was the

ultimate parent company of Audi Aktiengesellschaft, Porsche Aktiengesellschaft, Volkswagen Group of America, VW Chattanooga Operations, LLC, Audi of America, LLC, and Porsche Cars of North America. For reference, an illustrative flowchart of Defendants' entities and key employees is attached as Appendix 2. VW AG designs, manufactures, markets and sells automobiles under the Volkswagen, Audi and Porsche brands, including the Unlawful Vehicles that were sold or leased in the U.S.

16. VW AG acting individually, jointly, and by and through its subsidiaries, committed all of the acts alleged in this Complaint.

17. Defendant Volkswagen Group of America, Inc. ("VWGoA") is a New Jersey corporation registered to conduct business in Vermont.<sup>2</sup> VWGoA maintains its principal place of business at 2200 Ferdinand Porsche Drive, Herndon, Virginia. VWGoA is a wholly-owned subsidiary of VWAG. Acting in concert with the other Defendants, VWGoA manufactured Unlawful Vehicles—which included installing Defeat Devices—and marketed and delivered Unlawful Vehicles for sale or lease in Vermont. At the direction of VW AG, VWGoA's Engineering and Environmental Office ("EEO") submitted false documentation to federal and state regulators to obtain certification of compliance with emission requirements for the Unlawful Vehicles.

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<sup>2</sup> Vermont Secretary of State Foreign Profit Corporation, ID No. 0082456. VWGoA engages in business activities in all fifty states and the District of Columbia.

18. Defendant Volkswagen Group of America Chattanooga Operations, LLC, ("VW Chattanooga") operates a manufacturing plant in Chattanooga, Tennessee.<sup>3</sup> VW Chattanooga is a wholly owned subsidiary of VWGoA. VW Chattanooga manufactured some of the Unlawful Vehicles, specifically, the Volkswagen Passat turbocharged direct injection ("TDI") diesel vehicles. VW Chattanooga installed Defeat Devices into these diesel Passats.<sup>4</sup> Further, VW Chattanooga delivered or arranged for delivery of these cars for sale or lease within the U.S., including Vermont.

19. Defendant Audi Aktiengesellschaft a/k/a Audi AG ("Audi AG") is a corporation organized under the laws of Germany, and has its principal place of business in Ingolstadt, Germany. Audi AG, a VW AG subsidiary,<sup>5</sup> designs, manufacturers, markets and sells automobiles under the Audi brand name, including Unlawful Vehicles delivered for sale or lease in Vermont. Audi AG also sold and supplied its 3.0-liter engines to Porsche Aktiengesellschaft which were marketed, titled, and/or registered in Vermont. At all relevant times, Audi AG has transacted and continues to transact business throughout Vermont.

20. Defendant Audi of America, LLC, also known as Audi of America, Inc., or Audi of America ("AoA"), is a Delaware limited liability company with its principal place of business located at 2200 Ferdinand Porsche Drive, Herndon,

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<sup>3</sup> see <http://www.volkswagengroupamerica.com/facts.html>

<sup>4</sup> *Id.*

<sup>5</sup> VW AG owns 99.55% of Audi AG's stock.

Virginia. AoA is a wholly owned subsidiary of VWGoA.<sup>6</sup> AoA marketed and delivered for sale or lease Unlawful Vehicles throughout the U.S., including Vermont. VWGoA is responsible for the acts of AoA in the State and the U.S. AoA is controlled and directed by VWGoA.

21. Dr. Ing. h.c. F. Porsche d/b/a Porsche Aktiengesellschaft a/k/a Porsche AG ("Porsche AG") is a corporation organized under the laws of Germany and has its principal place of business in Stuttgart, Germany. Porsche AG is a wholly-owned subsidiary of VW AG. Porsche AG bought and installed unlawful 3.0 liter TDI engines in Unlawful Vehicles it delivered for sale or lease throughout the U.S.

22. Porsche Cars North America, Inc. ("PCNA") is a Delaware corporation that is registered to do business in Vermont and has its principal place of business at One Porsche Drive, Atlanta, Georgia. PCNA is a wholly-owned subsidiary of Porsche AG (Defendants PCNA and Porsche AG are collectively referred to as "Porsche"). PCNA marketed and delivered for sale or lease Unlawful Vehicles throughout the U.S. and submitted documentation to federal and state regulators to obtain certifications of compliance with emission requirements for such vehicles. PCNA provided documentation for registration and/or titling of Unlawful Vehicles in Vermont.

### III. JURISDICTION AND VENUE

23. This Court has jurisdiction over the subject matter of this action, personal jurisdiction over the Defendants and authority to grant the relief requested pursuant to 12 V.S.A. § 913(b).

24. At all relevant times, VW AG, its subsidiaries Audi AG, Porsche AG, VWGoA, and, in turn their subsidiaries, VW Chattanooga, and PCNA, have purposefully availed themselves of this forum through, among other things, the conduct described herein. Further, VW AG, Audi AG, and Porsche AG:

- a. designed the Unlawful Vehicles with their Defeat Device software for sale within the U.S., including Vermont;
- b. directed VWGoA<sup>7</sup> to submit to U.S. and state regulators applications for certification required to sell or lease the Unlawful Vehicles in the U.S., including within Vermont;
- c. directed VWGoA and PCNA to submit to U.S. and state regulators documentation and emissions labeling that is required to title and/or register the Unlawful Vehicles in Vermont;

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<sup>7</sup> VWGoA's Engineering and Environmental Office ("EEO") submits to U.S. and state regulators applications for certification to sell, title and/or register the Unlawful Vehicles. This documentation provides that VW's Unlawful Vehicles meet the Vermont emission standards allowing for their sale, title and registration in Vermont.



- d. directed VWGoA and PCNA to make periodic submissions documenting the vehicles delivered for sale or lease and the applicable emissions standards with which they allegedly complied to U.S. and state regulators, including ANR, as required by Section 5-1107 of the Vermont Air Pollution Control Regulations;
- e. placed, or directed VWGoA and PCNA to place, false Smog Index Label and Environmental Performance Labels on Unlawful Vehicles;
- f. oversaw and/or directed VWGoA's, AoA's and PCNA's dissemination of false and misleading advertising and marketing of the Unlawful Vehicles as clean, green and environmentally friendly, to U.S. consumers, including Vermont Consumers;
- g. directed VWGoA to issue false and/or misleading recall notices in or around January and March 2015 to Vermont buyers and lessees; and
- h. controlled and directed VWGoA's, AoA's and PCNA's communications to U.S. regulators and the public in the aftermath of the 2014 independent study<sup>8</sup> that exposed Defendants' fraud to the public.

25. In addition, VWAG transacted business in Vermont through at least six Vermont car dealerships.

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<sup>8</sup> West Virginia University's Center for Alternative Fuels, Engines & Emissions was commissioned by the International Council on Clean Transportation to test the Unlawful Vehicles. As discussed herein, the report found that under real world driving conditions emissions from two of the three diesel vehicles it tested contained levels of NO<sub>x</sub> between five and thirty-five times higher than the legal emissions limits.

26. Venue lies in the Washington Unit of the Superior Court of the State of Vermont pursuant to 12 V.S.A § 402.

#### IV. LAW

##### A. Clean Air Regulatory Background

*1. Vermont Has Adopted California Motor Vehicle Emission Control Requirements, Including Exhaust Emission Standards for Nitrogen Oxides.*

27. Vermont's Air Pollution Control statutes provide for a coordinated statewide program of air pollution prevention, abatement and control for the purposes of protecting human health and safety, preventing injury to plant and animal life and property, fostering the comfort and convenience of the people, promoting the state's economic and social development, and facilitating enjoyment of the state's natural attractions. 10 V.S.A. § 551.

28. Section 567(a), 10 V.S.A. authorizes the Secretary of the Agency of Natural Resources ("Secretary") to provide rules for the control of emissions of air contaminants, including NO<sub>x</sub>, from motor vehicles, including requirements for the installation, use and maintenance of equipment designed to reduce or eliminate emissions.

29. The Secretary has adopted Air Pollution Control Regulations ("VAPCR"), including Subchapter XI, VAPCR §§ 5-1101 - 1109, which prescribes emission control requirements for new passenger cars and light-duty trucks.

30. Pursuant to VAPCR § 5-1102 & Appendix F, Subchapter XI of the VAPCR incorporates by reference motor vehicle emission control requirements adopted by the California Air Resources Board ("CARB") and codified in Title 13 of the California Code of Federal Regulations, including 13 C.C.R. §§ 1961, 1961.2, 1965, and 1968.2. Violations of the incorporated CARB regulations are violations of the VAPCR.

31. The California requirements incorporated into Subchapter XI of the VAPCR prohibit defeat devices and prescribe, *inter alia*: exhaust emission standards, including standards for NO<sub>x</sub>; and requirements for smog index and environmental performance labels, on-board diagnostic systems, durability data vehicles, emission data vehicles, and emission control system warranties.

**2. *NO<sub>x</sub> Emissions Are Harmful to Public Health and the Environment.***

32. NO<sub>x</sub> are a family of poisonous, highly reactive gases. Direct health impacts of NO<sub>x</sub> include respiratory problems and decreased lung function. NO<sub>x</sub> can also cause eutrophication and excess nutrient loading in bodies of water, and can negatively affect vegetation by, *inter alia*, causing leaf damage and reduced growth.

33. NO<sub>x</sub> reacts with volatile organic compounds in the presence of sunlight to produce ground-level ozone.

34. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of negative health impacts from ozone exposure.

35. NO<sub>x</sub> contributes to the formation of fine particulate matter, which causes respiratory ailments, cardiovascular disease and even premature death.

36. NO<sub>x</sub> also interacts with moisture in the atmosphere creating acid rain, which negatively impacts plants and aquatic ecosystems.

**3. *Vermont Requires Certification of New Motor Vehicles by California to Ensure Compliance with Emission Control Requirements***

37. CARB administers a certification program to ensure that motor vehicles introduced into commerce in the State of California satisfy that state's emission control requirements. California Health & Safety Code §§ 43100 *et seq.*

38. To ensure that new motor vehicles sold or leased in Vermont comply with the CARB requirements that Vermont has adopted, VAPCR § 5-1103(a) requires pre-sale or lease certification by CARB.

39. CARB certifies compliance with emission control requirements, including its exhaust emission standards for NO<sub>x</sub>, by processing applications for certification submitted by new vehicle manufacturers.

40. Vehicles for which certification is sought are assigned to test groups. A test group consists of vehicles with common features anticipated to result in similar emissions profiles for regulated pollutants. VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) & 1961.2(d)).

41. Prototype vehicles for a test group are tested to determine if they meet, *inter alia*, exhaust emission standards. If the prototype passes the tests and other

applicable requirements are met, CARB certifies the vehicles by issuing an Executive Order for all vehicles in the test group for the particular model year.

**4. *The Attorney General is Authorized to Seek Injunctive Relief and Civil Penalties for Violations of Emission Control Requirements.***

42. Under 10 V.S.A. § 8221, the Attorney General is authorized to enforce Vermont's Air Pollution Control Statutes and the VAPCR by filing an action in the Civil Division of the Superior Court.

43. In such an action, the Superior Court is authorized to grant temporary and permanent injunctive relief, and may, *inter alia*, enjoin future activities, order remedial actions to be taken to mitigate hazard to human health or the environment, and award a civil penalty of not more than \$85,000 for each violation and up to an additional \$42,500 for each day that a violation continues. The Court may also award additional civil penalties to recapture economic benefits resulting from a violation. 10 V.S.A. §§ 8221(b), 8010(c).

**B. The Vermont Consumer Protection Act.**

44. The Vermont Consumer Protection Act ("CPA"), 9 V.S.A. § 2453(a), prohibits unfair or deceptive acts or practices in commerce.

45. The Vermont Attorney General may bring an action under the CPA, 9 V.S.A. § 2458(b), against any person using or about to use any method, act, or practice declared to be unlawful under 9 V.S.A. § 2453 when such proceedings would be in the public interest.

## V. FACTS

46. Unless otherwise stated, the allegations set forth in this Complaint are based upon information obtained from the documents produced by Defendants, the testimony of Defendants' current and former employees, information available in the public domain, and information and documents obtained from other third-party sources through Plaintiff's investigatory efforts.

### A. The Volkswagen Group: Volkswagen AG and Its Subsidiaries

47. At all relevant times, Defendants acted together and directly aided one another in achieving their common objective of obtaining regulatory approval to sell and lease the Unlawful Vehicles in the United States, including Vermont.

Therefore, all acts and knowledge of each Defendant are imputed to the other Defendants. Among other things:

- a. VW AG controls the overall research and development and marketing budgets for the brands in the "Volkswagen Group";<sup>9</sup>
- b. for the Unlawful Vehicles that Defendants sold in the United States, VWGoA's EEO acted as their representative before U.S. and state regulators for compliance and certification-related issues;
- c. AoA is a subsidiary of VWGoA;
- d. the three brands, Volkswagen, Audi, and Porsche, share engineering research and development and engine concepts and designs, including in

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<sup>9</sup> The "Volkswagen Group" comprises twelve brands: Volkswagen Passenger Cars, Audi, SEAT, ŠKODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN.



this case VW AG's incorporation of Audi-designed software and hardware elements into the Unlawful Vehicles. As detailed below, VW AG incorporated this Defeat Device software in the 2.0 liter Unlawful Vehicles, including the Generation 1 / EA 189 ("Gen 1") diesel engines and Generation 2 EA / 189 ("Gen 2") diesel engines. Porsche AG incorporated the Audi 3.0-liter diesel engine for its Cayenne SUV Unlawful Vehicles; and

- e. officers and employees of Defendants, including several of those involved in the unlawful conduct described in this Complaint, are shared among the Defendants, and have moved from the employ of one Defendant to another, including during the time relevant to the State's claims.<sup>10,11</sup> A

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<sup>10</sup> Individuals names will be provided in full the first time they appear and thereafter by surname only.

<sup>11</sup> Among other examples:

- Martin Winterkorn served as CEO of Audi AG from 2002 to 2007, when the defeat devices were first developed, before he becoming VW AG's CEO in 2007, a position he held until shortly after Defendants' unlawful conduct was publicly exposed in September 2015;
- Wolfgang Hatz led Audi's Powertrain Department (engines and transmissions) from 2001 to 2007, when Audi developed its first defeat device for its 3.0 liter V6 diesel for the European market. In 2007, Hatz assumed the same role at VW AG, just as VW AG was finalizing its own defeat devices for its U.S.-market 2.0 liter diesels. In 2011, Hatz moved to the top engineering job at Porsche, where he oversaw its rollout of a defeat-device equipped 3.0 liter Audi V6 to the U.S. market the following year;
- Ulrich Hackenberg held senior engineering positions, including emissions responsibilities, at Audi from 2002 to 2007. He then moved to VW AG from 2007 to 2013, when both companies were developing and

reference index of Defendants' referenced officers and employees referred to herein is attached as *Appendix 3*; and

- f. senior management at VW AG, VWGoA, and Audi AG discussed, planned and coordinated the response to the diesel scandal as it unfolded for Defendants in the United States.

**B. Defendants Used Defeat Device Software to Sell Unlawful Vehicles in the United States, including Vermont.**

**1. The Unlawful Vehicles**

48. In response to Toyota's commercial growth in the U.S. in environmentally advanced hybrid technology, Defendants began to design and develop and ultimately marketed, sold and leased, the light duty diesel throughout the U.S., including in Vermont.

49. The Unlawful Vehicles are a line of diesel turbocharged direct injection ("TDI") 2.0-liter ("2.0L") and 3.0-liter ("3.0L") vehicles which include several makes

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implementing their defeat device strategies, before moving back to Audi from 2013 to 2015;

- Oliver Schmidt headed the EEO office within VWGoA in 2014 and early 2015 before returning to VW AG in Germany. He played an important role (from both positions) in Defendants' efforts to conceal from U.S. regulators the true reason for the Unlawful Vehicles' unlawfully high real-world NO<sub>x</sub> emissions which were first detected in Spring 2014; and
- James Liang was one of the engineers at VW AG in Wolfsburg, Germany who was directly involved in the development of the defeat device for the Gen 1 Volkswagen Jetta in 2006; by 2014-15, he was conducting tests for VWGoA at its Oxnard, California facility as part of Defendants' efforts to conceal from regulators that the defeat devices were responsible for the Unlawful Vehicles' illegal emissions.

and models sold or leased in the United States from 2008 through 2015 (or model years ("MY") 2009-2016). There were versions of TDI 2.0L vehicles manufactured by Defendants that differed from each other in engine design and/or emissions control system. The makes and models for each of the 2.0L and 3.0L Unlawful Vehicles are summarized in the table below:

**Table 1: Unlawful Vehicles**

**2.0L Diesel Models**

<b>Model Year ("MY")</b>	<b>Generation (Gen)/Engine</b>	<b>Environmental Protection Agency ("EPA") Test Group</b>	<b>Vehicle Make and Model(s)</b>
2009	Gen 1 /EA189	9VWXV02.035N 9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	Gen 1 /EA189	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	Gen 1 /EA189	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	Gen 1 /EA189	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, VW Beetle, VW Beetle Convertible, Audi A3,
2013	Gen 1 /EA189	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	Gen 1 /EA189	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012 2013 2014	Gen 2 /EA189	CVWXV02.0U4S DVWXV02.0U4S EVWXV02.0U4S	VW Passat
2015	Gen 3 /EA288	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

**3.0L Diesel Models**

<b>Model Year (MY)</b>	<b>EPA Test Group(s)</b>	<b>Vehicle Make and Model(s)</b>
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Porsche Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Porsche Cayenne Diesel Audi A6 Quattro, Audi A7 Quattro, Audi A8L, Audi Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi Q7 Porsche Cayenne Diesel Audi A6 Quattro, Audi A7 Quattro, Audi A8L, Audi Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Porsche Cayenne Diesel Audi A6 Quattro, A7 Quattro, Audi A8, Audi A8L, Audi Q5

50. For clarity, throughout this Complaint, the 2.0-liter Generation 1/EA-189 engines, the Generation 2/EA-189 engines, and Generation 3/EA-288 engines identified above will be referred to respectively, as “Gen 1s”, “Gen 2s”, and “Gen 3s”, and collectively as the “2.0Ls”; the 3.0-liter models will be referred to collectively as the “3.0Ls”; and the 2.0Ls and the 3.0Ls will be referred to collectively as the “Unlawful Vehicles.”

51. Defendants sold, leased, and warranted nearly 500,000 2.0Ls and more than 88,000 3.0Ls in the U.S.

52. From 2009 to 2015, at least 2,900 Unlawful Vehicles were delivered for sale or lease to Vermont consumers. Additional Unlawful Vehicles were purchased or leased outside Vermont and then brought to Vermont to be titled and/or registered. As of October 1, 2015, at least 3,400 Unlawful Vehicles were titled and/or registered through the Vermont Department of Motor Vehicles ("DMV").

## ***2. Defendants' Defeat Devices***

53. Defendants wanted to use their existing diesel engine technology in the U.S. market, but faced an engineering challenge: diesel engines are high NOx emitters, making compliance with U.S. NOx emissions regulations especially difficult. Instead of meeting this challenge through engineering, improvements, and innovation, Defendants installed Defeat Devices in the Unlawful Vehicles to mask their failure to meet federal and state emissions standards.

54. Defendants installed illegal Defeat Devices in the Unlawful Vehicles' engine control units ("ECU(s)"). The Defeat Device software recognized when the Unlawful Vehicles were undergoing laboratory testing, such as test cycles on a rolling dynamometer,<sup>12</sup> using time and temperature parameters, among others. When the Defeat Device software detected a test cycle, it optimized the emissions controls to bring emissions into compliance with applicable standards. Outside of

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<sup>12</sup> Also known as a "treadmill" or "roller" or "dyno" during controlled lab emissions testing.

the test cycle, the Defeat Device software lowered the emissions controls, resulting in NOx emissions up to 40 times the permissible limit.

55. For example, the Defeat Devices installed in the 2.0Ls work by directing the engine to run in one of two modes: a “testing” mode during which the car’s emissions systems are fully operational, and a “driving” mode during which the car’s emissions systems are substantially deactivated.

56. Every time one of these vehicles is started, it automatically enters into “testing” mode. During the first several minutes of operation, the software checks the car’s acceleration and speed profile against the tightly-defined acceleration and speed profiles of the government-specified emissions test cycles used to test a car’s emissions.

57. If the Defeat Device software determines that the car is running in a test cycle, it keeps the engine in “testing” mode so that the car’s emissions controls remain fully operational. If, on the other hand, the Defeat Device determines the car is being driven in normal, random conditions as occur in real-world driving, the Defeat Device switches the engine into “driving” mode, during which emissions controls are substantially deactivated, with the effect that NOx emissions increase by a factor of up to 40 times the legal limit.

### ***3. Defendants’ Manipulation of On-Board Diagnostics to Conceal the Defeat Devices***

58. Vermont has adopted Inspection and Maintenance (“I & M”) programs that require all registered motor vehicles to pass periodic inspection tests that evaluate, among other things, the vehicles’ emissions systems. In Vermont, as



elsewhere, the inspection tests do not directly measure the cars' emissions, but rely instead on the vehicles' on-board malfunction and diagnostic system ("OBD") to indicate whether the cars' emissions system is functioning properly. State and federal laws require auto manufacturers to equip their cars with OBD systems that electronically report failures of emissions systems to mechanics or inspectors during service or inspection.

59. For example, a properly-functioning OBD system would have reported the failure of the Unlawful Vehicles to run their exhaust gas recirculation ("EGR") systems properly and would have alerted inspectors, mechanics, and car owners that the cars' emissions systems were not functioning correctly and required repair.

60. To allow the Unlawful Vehicles to pass Vermont's inspection and maintenance tests, Defendants implemented a further deception: they programmed the OBD systems on the Unlawful Vehicles to falsely report, at inspection time, that the Unlawful Vehicles' emissions systems, including EGR, were working properly.

61. For a period of more than eight years, despite subjecting the Unlawful Vehicles to thousands of periodic inspections, Vermont's inspectors, mechanics, and car owners were misled into believing that Unlawful Vehicles complied with applicable environmental laws when they did not.

**C. Defendants Falsified Certification Applications, Manufacturer's Certificates of Origin and Emission Control Information Labels to Allow Sale and Registration of Unlawful Vehicles in Vermont.**

62. In order to deliver for sale or lease, offer for sale or lease, sell or lease vehicles in Vermont, a company must obtain from CARB an Executive Order which

certifies that the vehicles are in compliance with applicable emission control requirements.

63. Defendants obtained CARB Executive Orders for the Unlawful Vehicles through submitting to CARB test data from the vehicles equipped with Defeat Devices and failing to disclose the Defeat Devices in their applications for Executive Orders. To the extent that it disclosed the Defeat Devices on the list of Auxiliary Emissions Control Devices ("AECDs") required in the applications for Executive Orders, it falsely represented that they were active in all conditions (i.e., in test and real driving conditions).

64. In order to register and title a new vehicle in Vermont, DMV requires submission of a Manufacturer's Certificate of Origin ("MCO") which indicates compliance with applicable Vermont emissions requirements.

65. Defendants provided to their dealers MCOs for the Unlawful Vehicles, which indicated that the vehicles complied with applicable emissions requirements when in fact they did not. The MCOs were provided by the dealer or purchaser to DMV, and, in reliance on the MCOs, DMV permitted the Unlawful Vehicles to be titled and/or registered in Vermont when they should not have been titled and/or registered.

66. Manufacturers also are required to affix an Emission Control Information Label in the engine compartment of a vehicle which certifies compliance with applicable emissions standards and OBD requirements. In order to register and title a vehicle with less than 7,500 miles in Vermont that has been

registered and titled in another state, DMV checks the Emission Control Information Label to determine whether the vehicle complies with applicable requirements.

67. Defendants affixed to the Unlawful Vehicles Emission Control Information Labels which certified compliance with applicable requirements, when in fact the vehicles were not compliant. In reliance on the Emission Control Information Labels, DMV permitted Unlawful Vehicles to be registered in Vermont when they should not have been registered.

**D. Defendants Implemented the Defeat Devices Knowing They Were Illegal.**

68. In very limited circumstances, a vehicle manufacturer may install an Emission Increasing-Auxiliary Emission Control Device(s) ("EI-AECD(s)") to run only in extreme driving circumstances to protect the engine, and only if (a) the automaker discloses it to the regulators; and (b) the regulators determine the software is not actually designed primarily to cheat the emissions testing. Defendants attempted to shoehorn their Defeat Devices into this limited exception.

69. From the inception of its 2006 plan to launch the Unlawful Vehicles in the United States, Defendants intensively researched whether they could pass off the various Defeat Devices as legally-permitted exception to the Defeat Device ban for certain EI-AECD(s).

70. On October 3, 2006, multiple executives and managers from VW AG,<sup>13</sup> Audi AG,<sup>14</sup> and VWGoA<sup>15</sup> met with CARB officials to provide a “technical description of future light-duty diesel emission control strategies [Lean Trap and selective catalytic reduction (“SCR”)] and to discuss emission certification implications (e.g., timing).” According to VW AG’s October 3, 2006 Meeting Report, during the meeting, CARB officials repeatedly requested “additional detail regarding AECDs.” The report states that, as a follow-up, “EEO, Volkswagen AG, and Audi AG [agreed] to review regulations to help identify AECDs, particularly EI-AECDs.” VW AG, Audi AG, and VWGoA further promised to provide CARB a more complete description of the AECDs by Spring 2007, in particular noting: “[p]er [C]ARB request, identify, describe function (e.g., activate, deactivate, or modulate the operation of emission control devices), describe effect on emission levels[.]” In other words, CARB required Defendants to submit documentation to show that its EI-AECDs (now known to be Defeat Devices) were permissible under limited circumstances, and were not illegal.

71. Following the October 3, 2006, meeting with CARB, the topic of AECDs and defeat devices became the subject of intensive internal discussion at VW AG, Audi AG, and VWGoA, both in Germany and the United States. In a November 2006 email to several of his VWGoA colleagues and multiple engineers at

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<sup>13</sup> Volkswagen AG executives: Richard Dorenkamp, Dr. Achim Freitag, James Liang, Juergen Peter, Detlef Stendel, and Burkhard Veldten.

<sup>14</sup> Audi AG: Klaus Appel, Dr. Armin Burkardt, Carsten Nagel, and Giovanni Pamio

<sup>15</sup> VWGoA’s Engineering and Environmental Office: Leonard Kata and Norbert Krause

Audi AG and VW AG, Stuart Johnson, a VWGoA EEO official, explained, “*almost all AECDs are really calibration issues and strategies, such as having a timing shift for engine starts, shutting off EGR certain modes such as extended idle to prevent plugging, timing changes for altitude, etc. . . . The agencies are really focused on how often an AECD is used.*” He referenced an earlier lawsuit in which heavy-duty engine manufacturers were caught using “*cycle beating strategies [with] timers on them that enacted the injection timing change once the engine was in a mode for a specific length of time*” as a “*clear violation of the spirit of the emission regulations and the certification test procedure.*” It is easy to infer from this communication that Defendants understood that the use of the Defeat Devices to circumvent applicable emissions standards was unlawful.

72. A few days later, Leonard Kata, Manager of Emission Regulations and Certification at EEO, emailed multiple VW AG, Audi AG, and VWGoA managers and noted:

[I]n connection with the introduction of future diesel products, there has been considerable discussion recently regarding the identification of Auxiliary Emission Control Devices (AECDs)...The agencies’ interest in the identification of AECDs is to determine whether any of these devices can be considered a defeat device.

73. In the email, Kata went on to explain how an EGR system that runs differently under test conditions than in real driving conditions—a central function of the Defeat Devices in all the Unlawful Vehicles —would constitute a defeat device under EPA and CARB regulations:

EPA also discusses the concept of the existence of a defeat device strategy if a manufacturer's choice of basic design strategy cannot provide the same degree of emission control during both [emissions-test cycle] and [non-emissions-test cycle] operation when compared with other systems available in the industry. A simple example is an EGR system that provides adequate performance under [emissions-test cycle] conditions, but insufficient performance under non- [emissions-test cycle] conditions (e.g., higher speed, load or temperature). This lack of control under [non-emissions-test cycle] conditions will be considered a defeat device.

74. In the AECD analysis attached to his email, Kata also explained:

Both EPA and [C]ARB define a defeat device as an AECD "...that reduces the effectiveness of the emission control system under conditions that may reasonably be expected to be encountered in normal vehicle operation and use unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; or (3) The AECD does not go beyond the requirement of engine starting."

75. On March 21, 2007, multiple managers and engineers at VW AG,<sup>16</sup> Audi AG,<sup>17</sup> and VWGoA<sup>18</sup> EEO had a follow-up meeting with CARB "to discuss Auxiliary Emission Control Devices (AECDs) associated with the diesel concepts presented." A March 21, 2007, Volkswagen Meeting Report summarizing the discussions states, in relevant part:

VW [sic] position regarding "normal vehicle operation" is that the light-duty vehicle emission test procedures cover normal vehicle operation in customer's hands. [CARB official] Duc Nguyen expects emission control systems to

<sup>16</sup> VW AG: Richard Dorenkamp, James Liang, and Juergen Peter

<sup>17</sup> Audi AG: Klaus Appel, Dr. Armin Burkardt, Giovanni Pamio, and Lothar Rech

<sup>18</sup> VWGoA EEO: Leonard Kata and Norbert Krause



work during conditions outside of the emissions tests.  
Volkswagen agrees.

76. Despite being fully aware of the prohibitions against defeat devices, Defendants proceeded to sell hundreds of thousands of Unlawful Vehicles, all of which featured undisclosed and illegal Defeat Devices.

**E. Internally, Defendants' Executives and Engineers Openly Discussed Defeat Device Development and Implementation.**

77. While Defendants were assuring CARB that their emissions control systems would work during real world driving, executives and engineers within their Powertrain Development departments were developing and implementing emissions-controlling defeat devices, such as those installed in the Unlawful Vehicles.

78. Discussions concerning Defeat Device development and implementation took place over nearly a decade between and among dozens of executives, senior managers and engineers.<sup>19</sup> The written discussions detail the use

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<sup>19</sup> Those involved in the discussions included, for example:

- a. Frank Tuch (2010-2015 head of Volkswagen AG Quality Management and a direct report to Volkswagen AG CEO and Management Board Member, Winterkorn);
- b. Bernd Gottweis (2007-2014 head of Product Safety within Volkswagen AG Quality Management);
- c. Rudolf Krebs, Jens Hadler, Heinz-Jakob Neusser and Friedrich Eichler (heads of Volkswagen AG's Powertrain Development from 2005-2007, 2007-2011, 2011-2013 and 2013-2015, respectively)
- d. multiple Volkswagen AG division heads, including Hanno Jelden (head of Drive Electronics from Nov. 2005 – Sept. 2015), Falko Rudolph (Diesel Engine Development from Nov. 2006 -Sept. 2010), Stefanie Jauns-Seyfried (head of Functions and Software Development within Powertrain Electronics from Nov. 2005 – Sept. 2015), Richard Dorenkamp (2003-2013) and Thorsten Duesterdiek (2013-present) heads

of the Defeat Devices to reduce emissions during test cycles, and otherwise described the expansion, modification and optimization of the cycle-beating Defeat Devices, well into 2014.

79. A February 29, 2016, Statement of Defense filed by VW AG in a pending European shareholder lawsuit offers possible insight into why, in light of its knowledge of the illegality of its conduct and the potential fines the company thought it would face, VW AG nevertheless opted to proceed with its fraudulent scheme:

Under the Clean Air Act, violations of the statutory emission standards may be sanctioned by fines called civil penalties. While these fines may be as much as U.S.-\$ 37,500 per vehicle and are thus in theory quite high, the statutory maximum amounts have to date played no role in practice. Nonetheless, they define the available range of penalties for the relevant U.S. authorities and are thus routinely cited in the corresponding notices – as was also the case with the EPA's Notice of Violation of 18 September 2015.

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- of Ultra-low Emissions Engines and Exhaust Post-Treatment within Diesel Engine Development), Hermann-Josef Engler (head of Passenger Car Engines within Diesel Engine Development), and Mathias Klaproth (head of Diesel System Applications within Powertrain Electronics);
  - e. numerous managers and engineers, including Veldten, Volker Gehrke and Dieter Mannigel (in Diesel Engine Functions within Powertrain Electronics' Functions and Software Development department) and Andreas Specht, Hartmut Stehr, Michael Greiner and James Liang (in Procedures and Exhaust Post-Treatment within the Diesel Engine Development department);
  - f. top Audi engineers, including Giovanni Pamio (General Manager of V6 Diesel Engines), Henning Loerch (Director of Exhaust Gas After treatment) and Martin Gruber (Director of Audi Diesel Engine Thermodynamics Department); and
  - g. Carsten Schauer, Chief of Porsche Electronics Development.

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Regardless of the statutory maximum amounts and the abstract presentation of the fine assessment criteria in the law, fines in practice do not even approach the upper end of the range, especially in cases involving passenger cars in large numbers (instead of heavy trucks).

**F. THE COVERUP: Defendants Continued to Deny the Existence of the Defeat Devices, Mislead Regulators, and Deceptively Marketed the Unlawful Vehicles Even After Initial Evidence of the Defeat Devices Caught the Attention of U.S. Regulators.**

80. While speaking about the Defeat Devices relatively openly in internal discussions, Defendants actively sought to conceal the Defeat Devices from regulators, researchers, and the public. For example, Defendants:

- a. directed the removal of reference to the Defeat Device (or the “acoustic function” as it was called internally) from ECU documentation;
- b. buried the results of 2012-2013 internal testing that reflected real world NO<sub>x</sub> emissions exceeding U.S. limits by many multiples;
- c. obfuscated, in response to questions presented by Dutch researchers in March 2012, information concerning lowered EGR in real driving conditions and corresponding increases in NO<sub>x</sub> emissions;
- d. denied independent researchers access to data that would confirm NO<sub>x</sub> discrepancies between testing and real driving conditions in Defendants’ U.S. fleet; and

- e. failed to disclose the illegal, emissions-increasing Defeat Devices in their certifications to state and federal regulators which falsely represented full compliance with applicable emissions and durability standards.

**1. *Defendants' Initial Reaction to the Spring 2014 Publication of the West Virginia University Testing Results and International Council on Clean Transportation Report***

81. On March 31, 2014, an Audi AG engineer alerted colleagues at VW AG and VWGoA's EEO to the upcoming publication of a report by the West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") commissioned by the International Council on Clean Transportation (the "ICCT Report"). The ICCT Report found that real world emissions from two of the three light duty diesel vehicles it tested contained levels of NO<sub>x</sub> between five and thirty-five times higher than the legal emissions limit. WVU researchers conducted those tests using a portable emissions measurement system ("PEMS") – essentially a lightweight mobile laboratory used to test and/or assess mobile source emissions in real driving conditions – rather than in a laboratory on a dynamometer.

82. Anxiety amongst Defendants about the possibility that the vehicles that failed were Defendants' vehicles was demonstrated by a flurry of internal VW AG, Audi AG, and VWGoA communications. Within days, those fears were confirmed when WVU researchers told VWGoA EEO that a 2012 Jetta (Gen 1s) and a 2013 Passat (Gen 2s) failed their tests.

83. Thereafter, VWGoA's EEO began receiving calls and requests for reports and analyses of the ICCT Report from multiple high-ranking VW AG and

VWGoA executives, including Michael Horn (then-CEO and President of VWGoA), Carsten Krebs (a Director at VWGoA), Frank Tuch (then-head of Group Quality Management for VW AG), Bernd Gottweis (then-head of Product Safety within VW AG Group Quality Management) and Christian Klingler (then-VW AG Management Board member responsible for Sales and Marketing).

84. Documents and information provided by managing engineers at VW AG, Audi AG, VWGoA, and AoA (including several engineers who participated in the design and implementation of the Defeat Devices in the early-2000s) to multiple senior management officials (including Winterkorn, then-CEO of VW AG and Chairman of VW AG's Board of Management, and Klingler) in the immediate aftermath of the ICCT study clearly demonstrates their understanding that:

- a. the high NO<sub>x</sub> emissions under real driving conditions could be readily explained by the existence of the Defeat Devices;
- b. Defendants would be subject to significant penalties if they admitted to regulators that the discrepancies were caused by Defeat Devices;
- c. Defendants could be required to buy back the vehicles if it could not bring the emissions down with a software update; and
- d. if Defendants opted to stay silent, EPA or CARB could obtain vehicles and conduct emissions testing that would reveal the existence of the Defeat Devices.

85. Indeed, in a May 23, 2014, letter to Winterkorn, CEO and Chairman of Volkswagen AG's Board of Managers, Volkswagen AG Quality Assurance head Frank Tuch warned:

*A thorough explanation for the dramatic increase in NO<sub>x</sub> emissions cannot be given to the authorities.* It can be assumed that the authorities will then investigate the VW systems to determine whether Volkswagen implemented a test detection system in the engine control unit software (so-called defeat device) and, in the event a "treadmill test" is detected, a regeneration or dosing strategy is implemented that differs from real driving conditions. In Drivetrain Development, modified software versions are currently being developed which can reduce the RDE, but this will not bring about compliance with the limits, either.

We will inform you about the further development and discussion with the authorities.

(Emphasis added)

86. With the risks of detection in mind, Defendants embarked on a strategy to deflect scrutiny. Defendants publicly denied that the Unlawful Vehicles failed emissions requirements. They neutrally acknowledged the existence of the problem without explaining its known cause to authorities or involving Volkswagen AG Group Product Safety, to maintain the illusion that the problem was insignificant, and it proposed software updates to "optimize" the emissions on the Gen 1 and Gen 2 vehicles.

87. Yet, as the executives at VW AG, Audi AG, VWGoA, and AoA who worked on this damage-control effort well knew, the proposed software modifications would:

- a. only bring the Gen 1s' emissions down to ten times the legal limits, while at the same time increasing fuel consumption;



- b. only bring the Gen 2s' emissions down to five times the legal limits;
- c. only bring the Gen 3 Defeat Devices' (i.e., all the MY 2015 Unlawful Vehicles with 2.0L engines, which were about to roll off the production line) emissions down to up to double the legal limits; and
- d. in the case of SCR-equipped Unlawful Vehicles – the Gen 2s, the Gen 3s and the 3.0Ls – nearly double urea dosing<sup>20</sup> requirements, thereby necessitating additional urea tank refills for a significant percentage of drivers.

88. Urea dosing is used in connection with SCR to reduce NO<sub>x</sub> in diesel exhaust. Urea dosing requires a storage tank that needs to be refilled at intervals. VW AG, Audi AG, VWGoA, and AoA looked into potentially increasing urea dosing as a way to bring the 3.0Ls into compliance with applicable emissions standards.

89. Defendants began a seventeen month-plus campaign, from May 2014 until September 3, 2015 (and beyond for the 3.0Ls), to mislead and confuse regulators and the public about the fact that their installation of the Defeat Devices was the true cause of the high real-driving NO<sub>x</sub> emissions identified in the ICCT Report.

**2. Defendants' Desperate Efforts to Deflect Scrutiny of the Model Year 2015 Generation 3s About to Hit the U.S. Market**

90. One of the most pressing dilemmas Defendants faced in the immediate aftermath of the ICCT Report related to the SCR-equipped MY 2015 Gen 3s. The

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<sup>20</sup> Urea dosing refers to a system which reduces NO<sub>x</sub> emissions by injecting a urea solution into the diesel exhaust stream.



vehicles were set to roll off the production line a few months later for delivery in the United States with the Defeat Devices installed.

91. On or around March 2014, just before the ICCT Report was released, Defendants had applied to CARB and EPA to certify the MY 2015 Gen 3s to the Low Emission Vehicle III ("LEV III") standard rather than the Low Emission Vehicle II ("LEV II") standard to which they had certified the earlier, MY 2009-2014 2.0Ls.

92. With the publication of the ICCT Report and the resulting intense scrutiny from regulators, Defendants were under immediate pressure to bring the Gen 3s into actual compliance with LEV III standards as quietly and quickly as possible.

93. Defendants estimated that in order to bring NOx emission down to within *two times* the legal limits, urea dosing would need to nearly double (from 0.8l/1,000 miles up to 1.5l/1,000 miles). And even then, according to VW AG's own estimates, 20% of Gen 3 owners would have to refill their urea tanks well before 10,000 miles.

94. Unwilling to come clean with the regulators, Defendants decided to use an impending change to EPA rules (effective September 8, 2014) (which permitted automakers to decouple urea tank refills from service intervals) as a pretext to update the software in the Gen 3s waiting in U.S. ports. During this update, and before the Unlawful Vehicles reached regulators or customers, Defendants changed

the software such that the amount of urea dosing was increased under real world driving conditions.

95. Thus, in early June 2014, VW AG, Audi AG, VWGoA, and AoA submitted revisions to its applications for certification to CARB and EPA which changed the anticipated urea refill interval from 10,000 miles to “approximately 10,000 miles.”

96. Sensitive that the potentially increased number of urea refills and the impact on drivability (vehicles with empty urea tanks cannot be started) brought “significant rejection reason to potential buyers,” Defendants also began discussing how to announce and message this change to dealers and consumers.

97. Given the time constraints and the significant threat to future sales, Defendants treated this matter with urgency and involved a multitude of executives and engineers at VW AG, Audi AG, VWGoA’s EEO, and AoA.

98. Defendants’ communications to dealers and the public regarding the changes in urea consumption for the Gen 3s falsely and/or misleadingly:

- a. suggested that the vehicles would meet EPA and CARB emissions standards;
- b. omitted any mention of the fact that NO<sub>x</sub> emissions in real driving conditions would still be as much as double legal limits;
- c. claimed that only customers with aggressive driving styles would see the intervals between refills reduced when, in fact, internal estimates reflected that 20% of drivers would have to refill their urea tanks before

10,000 miles (according to Audi AG and Volkswagen AG estimates, between 6,000 and 8,000 miles); and

- d. suggested that the older SCR-equipped Gen 2s (namely, MY 2012-2014 Passats) would not require increased urea dosing to comply with LEV II emissions standards, when in fact urea dosing would likely increase.

99. Defendants further mislead regulators and consumers by claiming the decision to increase urea dosing was a proactive decision by Defendants to meet more stringent Tier 2/Low Emission Vehicle III ("LEV III") emissions standards—when in fact it was a ruse to conceal from authorities Defendants' illegal urea dosing strategy.

**3. *Defendants' Deception Continued by Attempting to Placate Regulators by Offering Deceptive, Sham Software Recalls on the Generation 1s and Generation 2s***

100. At the same time, it was covertly managing the Gen 3 Defeat Device issue, Defendants were also attempting to downplay the scope and severity of the problems with the Gen 1 and Gen 2 Unlawful Vehicles. Defendants were particularly focused on preventing CARB from conducting its own tests on the Gen 1s, over 400,000 of which were already on U.S. roads and emitting NO<sub>x</sub> at up to 40 times the legal limits.

101. At an October 1, 2014, a teleconference with CARB attended by VWGoA and VWAG, including EEO's former and current heads (Oliver Schmidt and Stuart Johnson) and Emission Regulations and Certification Manager (Len Kata), and Volkswagen AG engineer (Juergen Peter), VW AG and VWGoA cited

bogus technical explanations for the high emissions, omitted any mention of the true cause of the high NO<sub>x</sub> emissions, and assured regulators it could “optimize” the vehicles’ emissions performance by conducting software recalls.

102. Defendants made those representations notwithstanding their knowledge that the proposed software recalls – the true purpose of which was to adjust the Defeat Devices in the Gen 1s (by increasing EGR and Lean Trap regeneration) and Gen 2s (by increasing EGR and urea dosing) – would not bring the Unlawful Vehicles into compliance with applicable emissions standards and would increase fuel and urea consumption, respectively.

103. In its November 26, 2014, and December 12, 2014, recall-related submissions to CARB and EPA, Defendants touted the Gen 2 software recall as a “pro-active” “upgrade.” In the description of the corrective action to CARB and EPA in those submissions, Defendants did not state why the software action was needed. Rather, they diverted attention from the Defeat Devices by describing the software - recall as follows:

- Improvements have been made with regard to the [particulate matter] PM filter loading / regeneration model. The updated software incorporates the latest engineering experiences to enhance the accuracy of the PM filter model. The implemented changes do not have a negative impact on the KI-factor determination or influence the on road performance of the vehicle.
- Improvements have been made ensuring a higher Ammonia filling level of the SCR catalyst. This ensures that the SCR catalyst is more robust against NO<sub>x</sub>-peaks caused by dynamic and transient speed / load changes. The new software incorporates the latest engineering experiences to enhance the efficiency of the SCR system.

104. Notices to dealers and consumers issued, in or around January 2015, were similarly misleading and deceptive, stating: “the vehicle's engine management software has been improved to assure the vehicle's tailpipe emissions are optimized and operating efficiently. Under certain operating conditions, the earlier strategy may have increased the chance of the vehicle’s [malfunction indicator lamp] light illuminating.” The letter sent to consumers detailing the recall notice misleadingly stated that the recall was being undertaken “[a]s part of Volkswagen's ongoing commitment to our environment, and in cooperation with the United States Environmental Protection Agency.”

105. Those recall notices were deceptive. No dealer or customer recipient would have understood why the recall was being conducted or the fact that the Unlawful Vehicles’ urea consumption would likely substantially increase, in many cases requiring consumers, for the first time, to refill their urea tanks between 10,000-mile service intervals and the Unlawful Vehicles would still not be in compliance with applicable emission standards.

106. Later, Defendants’ March 2015 recall-related submissions concerning the software update for the Gen 1s were similarly misleading and deceptive, again describing the action as a “pro-active” “upgrade” of Electronic Control Module (“ECM”) Software levels. Again, Defendants diverted attention from potential Defeat Devices in their description of the “specific modification” to EPA when it stated:

These changes will assist in reducing [malfunction indicator lamp] illumination for DTC P0401 & P2463, thus reducing the frequency of

unnecessary replacement of after treatment system components. In addition, the vehicle's engine management software strategy has been modified to optimize the PM filter loading and regeneration model under extreme driving conditions.

107. Defendants further falsely reported that the update would "pose no impact on fuel economy."

108. As with the earlier Gen 2 recall-related notices, Defendants deceptively told dealers and customers: "the vehicle's engine management software has been improved to assure the vehicle's tailpipe emissions are optimized and operating efficiently. Under certain operating conditions, the earlier strategy may have increased the chance of the vehicle's [malfunction indicator lamp] light illuminating." Defendants omitted any mention of the reason for the software update, the fact that post-update real-driving NO<sub>x</sub> emissions would still be up to ten times legal limits, and the anticipated decrease in fuel economy.

**4. Audi AG's Efforts to Deflect Regulators' Suspicions About the 3.0Ls**

109. Around the same time Defendants were meeting with regulators to describe the proposed 2.0L recalls and offering a host of improbable reasons for the NO<sub>x</sub> discrepancies that the recalls were meant to fix, regulators' suspicions about the 3.0Ls started to build.

110. Those suspicions were well-founded. Internal PEMS tests on multiple 3.0Ls conducted by Audi AG itself (starting in Fall 2014) had reflected real driving NO<sub>x</sub> emissions many times higher than permissible limits.

111. In February 2015, in response to increasing pressure from regulators for transparency on the 3.0Ls (and, in particular, questions about whether the upcoming MY 2016s for which Audi AG was then seeking emissions compliance certification were beset by the same issues as the 2.0Ls), EEO conveyed results of Audi AG's late 2014 – early 2015 PEMS testing of an Audi A8 V6 TDI MY 2016 to CARB: “emissions at a level of three times the NO<sub>x</sub> ULEV II [full useful life] standard.”

112. In a one-page written submission to CARB, Audi AG attributed the discrepancy between NO<sub>x</sub> emissions on the dyno and on the PEMS to “increased driving dynamics in combination with a lot more unsteady driving characteristics” and, to the fact that “the driving kinematics in the [Los Angeles] area are significantly different from standard [test cycle] characteristics” such “that a sustainable high SCR effectiveness in comparison to the regulatory [test cycle] can be reached and therefore leads to an increase in NO<sub>x</sub> emissions.” Audi AG further claimed:

the temporary reduction of the SCR effectiveness is caused by the underfloor position of the SCR system and therefore represents a physical boundary of the technical capability of the system and no intervention in the control strategy. Therefore[,] Volkswagen concludes that the current SCR-application fulfils the requirement of the AECD regulation. As a consequence[,] Audi requests an unconditional [Executive Order].

113. Although it had conducted additional PEMS tests of earlier and current 3.0L model years, and obtained considerably worse results (NO<sub>x</sub> emissions during real drive of ten times legal levels), Audi AG did not disclose those results to regulators or consumers. Instead, Audi disclosed only that it planned to alter the



applicable software to improve real-world emissions for future 3.0L models. At the same time, Defendants continued to market and sell the 3.0Ls to consumers.

114. Over the course of Spring 2015, CARB made multiple requests for information concerning: (a) whether the software updates Defendants offered for the Gen 1s and Gen 2s had brought those vehicles into compliance with relevant standards; and (b) whether the MY 2016 Gen 3s and the 3.0Ls, for which neither EPA nor CARB had yet issued emissions compliance certification, were beset by the same issues.

115. CARB officials followed up multiple times, requesting from Defendants more specific information regarding how the software controlled urea dosing on the MY 2016 2.0Ls and 3.0Ls for which Defendants was then seeking certification. Engineers and officials at VW AG, Audi AG, and VWGoA were in frequent contact with CARB, but did not provide CARB clear answers. Defendants failed to provide CARB with requested information for months.

116. Upon learning that CARB planned to conduct confirmatory testing of an updated Gen 2 Defeat Device using "Special Cycles," i.e., consecutive test cycles on the dynamometer, internal emails between EEO and engineers at VW AG began to reflect desperation and panic. In a May 18, 2015, email to several managers and engineers within VW AG's Powertrain Development Department and to EEO Head Johnson, VW AG engineer Peter conveyed serious concern regarding what CARB's Special Cycles would expose, asking his colleagues: "Do we need to discuss next

steps?" In response to CARB's questions relating to the soot loading of the DPF [Diesel Particulate Filter], Peter begged: "Come up with the story please!"

117. The same concern about the growing frequency and intensity of CARB's requests for information was reflected in a May 21, 2015, email from Mike Hennard, Senior Manager of Emissions Compliance at EEO, to multiple VW AG managers and engineers. It stated: "[p]lease be aware that this type of action from California ARB staff / management is not a normal process and that we are concerned that there may be possible future problems/ risks involved. It should also be noted that this TDI software issue is being reviewed and monitored by upper management at ARB [CARB]." After receiving Hennard's email, one of the senior managers wrote an email to Hennard's manager (VWGoA EEO-head Stuart Johnson) admonishing him for allowing his direct report to send such an open email to those recipients.

118. In June 2015, CARB conducted confirmatory testing on a 2012 SCR-equipped Passat (a Gen 2). Based on that testing, CARB notified Defendants that it had concluded that "VW's 'fix' Calibration" did not: (a) "directly address the lack of [urea] dosing filling strategy on some drive cycles" or (b) "directly address high NOx emissions on drive cycles extending beyond 1,400 seconds. VW's [urea] filling strategy is still only invoked once per drive cycle; therefore, NOx emissions will continue to increase as the drive cycle progresses [:]" and (c) "address why or when the filling strategy is invoked. Some drive cycle [sic] may never activate the [urea] filling strategy."

119. Thus, CARB indicated it could not certify the MY 2016 Gen 3s until it received confirmation they did not have the same parameters for urea dosing as the updated Gen 2s, which had already failed CARB's confirmatory testing.

**G. Defendants Only Admitted Their Misconduct on the 2.0Ls When They Thought Doing So Would Prompt Regulators to Certify Them to Sell Model Year 2016 Generation 3s.**

120. Defendants' repeated attempts to assure CARB that the "Gen 3 2016 MY did not share the [Gen 2] strategy or concern" were unsuccessful.

121. By mid-July 2015, Defendants had not obtained certification to sell the MY 2016 Gen 3 vehicles, the Unlawful Vehicles were piling up in the ports, and every interaction with regulators raised more questions and concerns than it answered.

122. On or about July 20, 2015, upon learning that CARB planned to test a MY 2015 Gen 3s to resolve questions about whether these vehicles (and the MY 2016 Gen 3s) needed a software update, EEO Head Johnson internally floated the possibility of "discussing a 'working mistake' with [C]ARB" and further suggested "how we handle this could be a positive step if we tie it to the refill interval and dosing strategy."

123. In an email dated July 21, 2015, VWGoA President and CEO Horn, conveyed the urgency of the situation to multiple board members and executives in Germany (including Klingler, VW AG Management Board member responsible for Sales and Marketing, and Neusser, the VW AG Passenger Car Board member responsible for Technical Development). Horn made clear that certification of the

MY 2016 Gen 3s was at risk if Defendants failed to provide CARB with all the outstanding information it was awaiting.

124. Thereafter, on or about August 5, 2015, Head of VW AG Engine Development head (and former VWGoA EEO head) Schmidt and VWGoA EEO head Johnson met with CARB management and admitted that, even after the software recalls, the Gen 1s and Gen 2s did not meet legal emissions compliance requirements. With respect to the SCR-equipped Gen 2s, they attributed the low urea dosing to efforts to conserve urea due to the 10,000-mile refill interval.

125. The Gen 2 recall VW AG, VWGoA, and Audi AG had just conducted should have addressed that issue, given the September 2014 change to EPA rules allowing refills to occur between the 10,000-mile service intervals.

126. A week later, on August 12, 2015, while still withholding the MY 2016 Gen 3 certifications because of concerns the MY 2015 and 2016 Gen 3s suffered from the same dosing issues as the Gen 2s, CARB technical staff again requested “the exact parameters that control [Generation 3 urea] dosing and show the before & after calibration difference that corrected the lack of dosing issues found during our [Generation 2] testing.”

127. After extensive internal discussion between and among the Head of EEO Johnson and multiple high level executives at VW AG (including Schmidt, Head of Engine Development and Gottweis, then-Head of Quality Management/Product Safety) in which Johnson expressed doubt concerning whether it would even be possible to give CARB what it requested “given the complication of today’s

code,” Defendants again decided to obfuscate. Rather than provide CARB with the information it sought regarding the MY 2016 Gen 3 urea dosing parameters, VW AG dispatched Johnson to reiterate to CARB the “same message Oliver [Schmidt] brought last week when we both met with [CARB officials], which is a partial admission that concern of the 10K refill interval is another parameter that influences the dosing and that is why he is not always seeing the dosing at the enabling temperature.”

128. Johnson’s effort to allay CARB’s concerns was unsuccessful. As Johnson reported in an August 12, 2015, email report to multiple high level executives, managers and engineers at VW AG,<sup>21</sup> CARB “still asked for information. This is not a new request. [CARB] has asked for the parameters in the calibration of Gen 2 that are limiting the dosing to ensure that it is not in Gen 3.”

129. On August 18, 2015, Eichler, Head of Volkswagen AG Drivetrain Development, sought authority from Neausser, then-VW AG Passenger Car Board member and Head of VW AG Engine Development, to send multiple VW AG diesel department heads (together with current and former EEO heads Johnson and Schmidt) to meet with CARB the following day. The express goal of the meeting was to secure the release of the MY 2016 Gen 3 vehicles and to convince CARB that Defendants would be able to implement measures to reduce the Gen 2s real driving NO<sub>x</sub> emissions values to an acceptable level within an agreed timeframe. To do

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<sup>21</sup> Volkswagen AG (Oliver Schmidt, Friedrich Eichler, Bernd Gottweis, Daniel Schukraft, Juergen Peter, Detlef Stendel, Richard Preuss, and Duesterdiek),

that, they agreed to (again): acknowledge problems in the Gen 1 and Gen 2 engines; promise another software update to the Gen 2 engines in mid-2016; and continue to assure CARB that the lessons learned from the Gen 2 engine issues had informed and improved the emissions controls in the Gen 3 engines.

130. Consistent with the agreed-upon approach, the technical presentation Defendants made to CARB on August 19, 2015, (entitled “Technical Information to enable ARB to issue the MY16 – Gen 3 certificate”) generally described the modifications to the Gen 3 dosing strategy as compared to the Gen 2s, and generally described the inputs, but did not provide the actual values that enabled or disabled urea dosing or admit any time- or distance-related inputs.

131. This presentation did not satisfy CARB, which demanded more information and continued to withhold MY 2016 Gen 3 certification.

132. By late August 2015, Defendants’ concerns went beyond the MY 2016 Unlawful Vehicles piling up at the ports. On August 26, 2015, CARB obtained a MY 2016 Gen 3 engine for testing, making the discovery of the Defeat Devices inevitable. VW AG, Audi AG, and VWGoA management knew they needed to provide CARB with the information it sought and expressly recognized that potential financial liability necessitated the creation of a reserve. Yet, Defendants continued to question whether and to what extent it should disclose other functions controlled by the Defeat Devices, e.g., Lean Trap Regeneration and EGR.

133. On September 3, 2015, at a meeting attended by multiple CARB officials, VW AG executives and managers (Eichler, Preuss, Schmidt, Duesterdiek,

Veldten) and Head of EEO Johnson, Defendants finally admitted the existence of the Defeat Devices in the Gen 2s and disclosed the existence of “test recognition software and engine map/dosing changes between road and chassis dyno.”

134. At that September 3, 2015, meeting, VW AG, Audi AG, and VWGoA admitted for the first time that the Gen 2 ECUs had two calibrations: one for real world driving (Calibration 1) and one for testing (Calibration 2). In Calibration 1, Defendants disclosed that the urea dosing, the EGR, and the common direct fuel injection system, also known as common rail direct fuel injection (the “Rail Pressure”), were lower than would be required to cause more complete combustion resulting in lower emissions. In Calibration 2, VW AG, Audi AG, and VWGoA disclosed that the urea dosing, the EGR and the Rail Pressure were higher, thereby meeting applicable emissions standards. In addition, VW AG, Audi AG, and VWGoA provided greater detail regarding the enable/disable values for these calibrations.

135. Far from convincing the regulators that certification of the MY 2016 Gen 3s should move forward, VW AG, Audi AG, and VWGoA’s admissions raised additional questions and concerns to which CARB sought a response, including concerns regarding compliance with applicable durability standards (given the anticipated increase in the number of diesel particulate filter regenerations post-software update).

136. On September 18, 2015, EPA issued to VW AG, Audi AG, and VWGoA a Notice of Violation (“NOV 9-18-2015”) reflecting the agency’s determination that

VW manufactured and installed defeat devices in certain model year 2009 through 2015 diesel light-duty vehicles



equipped with 2.0 liter engines. These defeat devices bypass, defeat, or render inoperative elements of the vehicles' emissions control system that exists to comply with [Clean Air Act] emission standards... Additionally, the EPA has determined that, due to the existence of the defeat devices in these vehicles, these vehicles do not conform in all material respects to the vehicle specifications described in the applications for the certificates of conformity that purportedly cover them.

137. The same day, CARB sent an In-Use Compliance letter to VW AG, Audi AG, and VWGoA describing its investigation of the "reasons behind these high NO<sub>x</sub> emissions observed on their 2.0L diesel vehicles over real world driving conditions" and its related discussions with VW AG, Audi AG, and VWGoA. According to CARB, those discussions "culminated in VW's [September 3, 2015] admission to CARB and EPA staff that it has, since model year 2009, employed a defeat device to circumvent CARB and the EPA emission test procedures."

**H. Even in the Face of Formal Actions Concerning the 2.0Ls, Defendants Continued to Deny the Existence of Defeat Devices in the 3.0Ls.**

138. Even in the face of regulatory action concerning the 2.0Ls and the intense public scrutiny they were facing, Defendants continued to publicly deny the existence of the Defeat Devices in the 3.0Ls.

139. At the same time, affected managers and engineers at Audi AG and EEO were discussing how to disclose to CARB the existence of time- and temperature-based urea dosing and EGR software strategies in the 3.0Ls, without expressly acknowledging the presence of the Defeat Devices VW AG, Audi AG, and VWGoA had admitted existed in the Gen 2s.

140. On or around October 2015, CARB conducted its own special cycle testing on a MY 2016 Audi A6 and a MY 2014 Volkswagen Touareg.

141. On November 2, 2015, EPA issued a Notice of Violation (“NOV 11-2-2016”) to VW AG, Audi AG, Porsche AG, VWGoA and PCNA, in which EPA notified Defendants that it had conducted defeat device screening and certification testing on an MY 2016 Audi A6 and a MY2014 Volkswagen Touareg and “observed the same type of emissions behaviors as those in which VW has admitted defeat devices exist. These activities corroborate testing conducted by U.S. EPA and Environment Canada on a 2014 VW Touareg (Test Group EADXT03.02UG) and a 2015 Porsche Cayenne (Test Group FPRXT03.0CDD), respectively. This testing has also yielded evidence of a defeat device.”

142. On November 20, 2015, CARB issued a press release reporting that in a November 19, 2015, meeting with EPA and CARB, “VW and AUDI told EPA and CARB that the issues raised in the In-Use Compliance letter extend to all 3.0L diesel engines from model years 2009 through 2016. Thereafter, in an In-Use Compliance Letter dated November 25, 2015, CARB confirmed its determination “that all 3.0-liter model years 2009-2016 test groups of the [Audi AG, Porsche AG, Porsche Cars North America, Volkswagen AG, and Volkswagen Group of America, Inc.] are in noncompliance with CARB standards.”

#### **I. Defendants’ Deception Perpetrated On Vermont Consumers**

- 1. Defendants Deceived Consumers Because the Unlawful Vehicles Were Not the “Green”, “Clean Diesel” Cars Promised.***

143. At all relevant times, in an effort to spur sales in the United States, Defendants proudly touted the performance and reliability of the Unlawful Vehicles and their purported environmental leadership, intentionally targeting its marketing to environmentally-conscious consumers.

144. Defendants employed an advertising and marketing campaign designed to transform the reputation of diesel engines among American consumers from one of noisy and smoky workhorses best left to trucks and buses into one of smooth-running, high-technology automotive engines that would deliver fuel efficiency, high performance and low NOx emissions.

145. From as early as 2007, internal documents relating to “Volkswagen’s Opportunities with Clean Diesel” reflect VW AG’s determination to “OWN the segment before the competition come to market” and “own ‘Clean Diesel’ the way Toyota owns ‘Hybrid’.” VW AG’s marketing strategy focused on positioning “Clean Diesel as [an] environmental halo over [the] VW brand” and making “environmental conscience” the “centerpiece” of Volkswagen’s “innovation/technology story.”

146. Defendants’ deceptive advertising was effective. By 2015, the Volkswagen Group became the world’s largest automaker by sales, and by July of 2015 ranked eighth on the Fortune Global 500 list of the world’s largest companies. Between 2009 and 2015, Defendants sold or leased over 3,400 Unlawful Vehicles in Vermont.

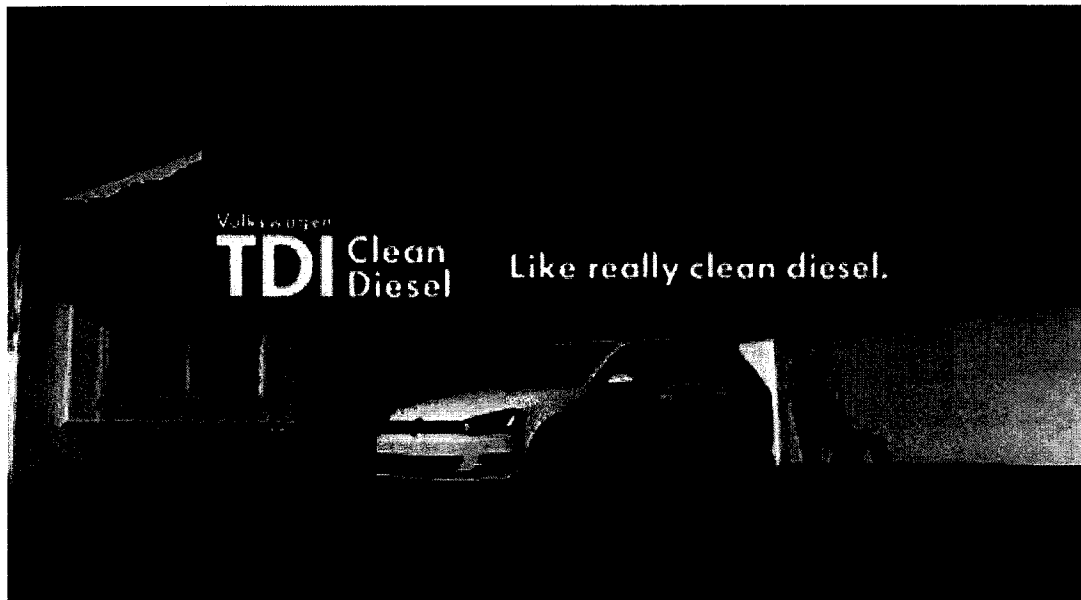
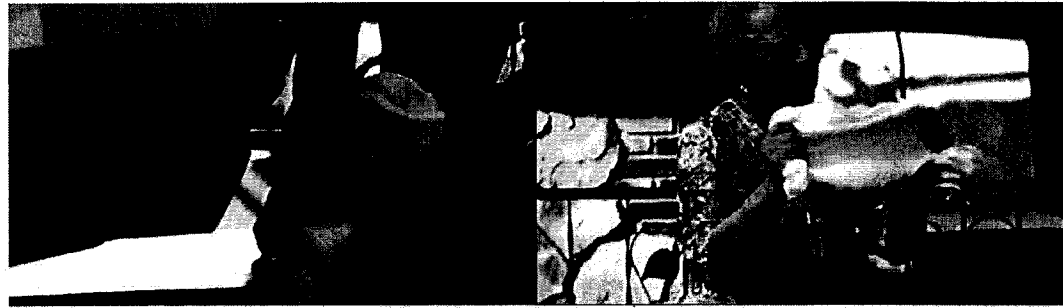
**2. *Volkswagen and Audi's Clean Diesel Promotion Permeated the Media in Several Forms and Prominently Featured Its Purported Environmental Benefits.***

147. At all relevant times, Defendants were responsible for marketing and selling the Unlawful Vehicles.

148. Even in the wake of the ICCT study in Spring 2014, their own internal PEMS testing that confirmed the high real driving emissions in the 2.0Ls and 3.0Ls, and even as the regulators grew increasingly skeptical about the Unlawful Vehicles' emission compliance, Defendants did nothing to modify or scale back its message of environmental leadership and the benefits of "Clean Diesel" in the United States.

149. From 2009 through 2015, Defendants spent hundreds of millions of dollars to develop and place internet, television and print advertisements that highlighted the fuel efficiency, performance and environmental hygiene of the Unlawful Vehicles, to rebrand diesel as a clean-running, fuel-efficient alternative to their gas and hybrid competitors, and to associate the Volkswagen and Audi brands with progressive ideals, environmental consciousness, and innovation. These advertisements appeared nationally, including in Vermont.

150. Commercial videos lampooned as "Old Wives' Tales" the notion that diesel was dirty and noxious. "[Diesel] used to be dirty," says one character, "but this is 2015." A character places her scarf against the exhaust of a diesel and states, "see how clean it is!" The ad is followed by a statement, "Like really clean diesel." Exemplars are provided below.



151. As of March 30, 2015, Volkswagen's "Old Wives' Tales" ad campaign alone – a media campaign aimed at debunking the myths that diesel was, among other things, sluggish, stinky and dirty – had gotten over 9.9 million views on Visible Measures True Reach, 13.5 million Tumblr impressions, and over 5 million Twitter impressions. Within just six hours of posting, the "Dirty" video alone got over 80,000 views.

152. In separate commercials, including during multiple Super Bowls, Defendants touted the Volkswagen Jetta TDI and Audi A3 TDI as the "Green Car of the Year."

153. A 2010 AoA press release announcing the decision to advertise during the Super Bowl stated: “[T]he spot will highlight the Audi A3 TDI, recently named by Green Car Journal as the 2010 “Green Car of the Year” and will have a fun, tongue-in-cheek environmental theme.... This year, Audi will demonstrate its leadership position within the luxury segment with a brand spot that delivers the message that being environmentally conscious might not be easy, but the Audi A3 TDI clean diesel is now a proven environmental solution.” Metrics from that Super Bowl ad reflect the commercial had 115.6 million viewers and was, at the time, the second most watched commercial in U.S. history.

154. A commercial for the Audi A3 TDI urged consumers to “Do Your Part,” and went on to depict the TDI engine as efficient, high performing, and therefore a “more fun” alternative to forms of green transportation such as cycling, bio-diesel, and public transit.

155. Press releases issued by VWGoA concerning the Unlawful Vehicles were misleading as well, falsely touting the effectiveness of the emissions control systems. For example, an August 25, 2013 press release for the MY 2014 Touareg falsely claimed its Selective Catalytic Reduction system “helps reduce NOx emissions by up to 90 percent. This lets the engine meet the Tier 2, BIN 5/ ULEVII standards imposed across all 50 U.S. states.” These were the very standards that the Unlawful Vehicles violated.

156. Marketing brochures likewise contained misstatements about the effectiveness of the emissions control systems. A brochure for the MY 2015 A3, for

example, featuring Audi's slogan "Truth in Engineering" contained the following misleading claim about the Audi A3's NO<sub>x</sub> reduction technology: "[w]ith innovative diesel particulate filters and the nontoxic AdBlue reducing agent, we eliminate up to 95% of diesel NO<sub>x</sub> emissions."

157. Print ads featuring tag-lines like "This ain't your daddy's diesel," "Diesel has really cleaned up its act" and "Di\*sel - it's no longer a dirty word" (exemplars directly below) were geared toward rebranding diesel as a clean alternative to gasoline and hybrid competitors of Volkswagen and Audi. Exemplars of such ads are below:



## Diesel has really cleaned up its act.

Find out how clean diesel technology impacts fuel efficiency and performance, while also being a more eco-conscious choice.

Go to [clearlybetterdiesel.org](http://clearlybetterdiesel.org).



# Di\*sel

it's no longer a dirty word.

**TDI** clean diesel

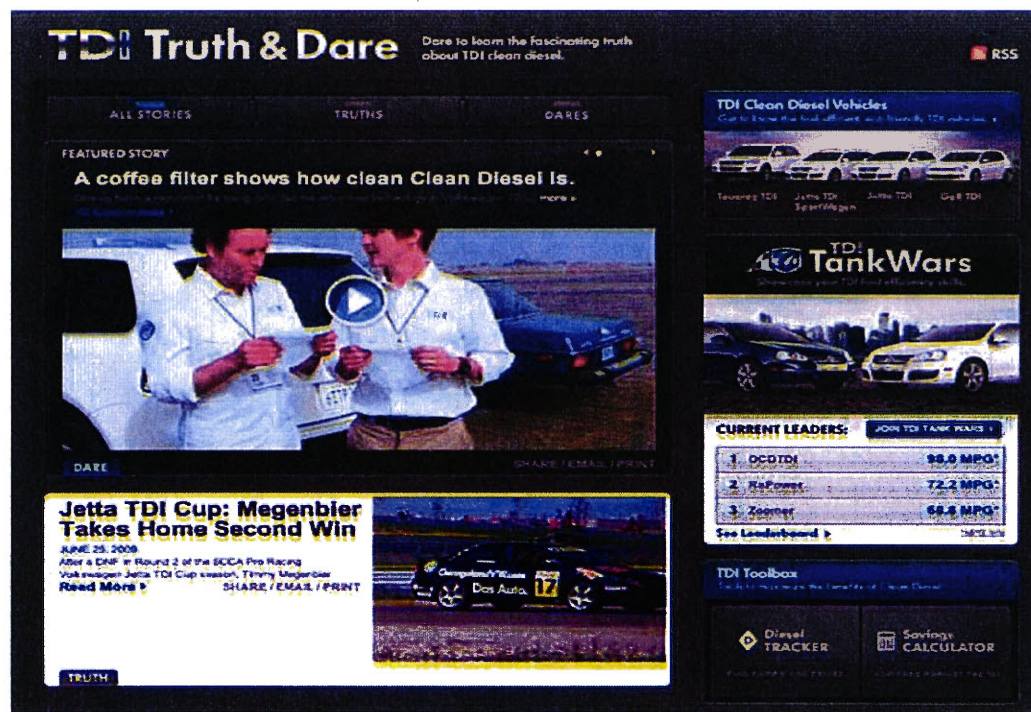


The Audi A3 TDI

The Audi Q7 TDI

It's official. Diesel has made a comeback and Audi TDI clean diesel is the reason why. The proof is in the super-efficient engine: 42mpg highway for the Audi A3 TDI and 25mpg highway for the Audi Q7 TDI, to be exact.\*\* Combine that with powerful, off-the-line low-end torque and 20% fewer emissions than gasoline engines and you have the complete diesel package.\*\* Not surprising, the Audi A3 TDI has also been named "Green Car Journal's 2010 Green Car of the Year."\*\* Test-drive an Audi TDI clean diesel today at a dealer near you. [www.audi.com/clearlybetterdiesel](http://www.audi.com/clearlybetterdiesel)

158. These advertisements directed consumers to promotional websites such as TDItruthanddare.com, launched by VW AG and VWGoA in March 2009, which included promotional advertisements, videos and interactive tools (exemplar below) which dramatized claims of TDI engines' being clean, or clearlybetterdiesel.org, which was presented as an informational factsheet and listed claims about the environmental, efficiency, and performance benefits of "Clean Diesel" engines.



159. Like the advertisement below, Volkswagen and Audi advertisements uniformly promised consumers not only a "clean" car, but one that was higher performing, and more fuel efficient than non-diesel options.

## Not just how far, but how fun.

With efficient diesel technology, TDI Clean Diesel lets you travel much farther between stops for fuel than with comparable gasoline engines. And since our TDI Clean Diesel engines are turbocharged, each one of those miles will be infinitely more fun.

See how far you can go with TDI Clean Diesel.



160. Defendants' advertisements also claimed that their Clean Diesel models typically retain a higher resale value than similar gasoline vehicles.

161. Defendants disseminated these advertisements and marketing materials throughout the United States, including in Vermont.

### ***3. Porsche Deceived Consumers by Promising "Clean Diesel" Cars That Were "Green" but Which In Fact Unlawfully Polluted the Air.***

162. At all relevant times, Defendants Porsche AG and PCNA (collectively referred to as "Porsche") were responsible for marketing and selling the MY 2013--2016 diesel Cayennes ("Cayennes").

163. Porsche's literature for its first diesel-powered Porsche, the Cayenne, heavily touted its new, "clean" diesel technology that allowed for clean emissions while retaining the feel of a sports car.

164. A Porsche brochure issued in 2012 for the Cayenne described the vehicle as a "technological marvel, able to take its unique fuel source and transform



it into clean, efficient, and incredibly torque-rich power,” further noting: “what is new” in the Cayenne “is the degree of refinement that Porsche has brought to it, making a new 3.0-liter turbo diesel V6 that is far advanced from what many people perceive – especially in terms of its acceleration, clean emissions, and quiet-running operation.”

165. In its literature, Porsche described the Cayenne’s emission control system as “innovative” and “intelligent” and claimed, among other things, the Cayenne’s Exhaust Gas Recirculation, Diesel Particulate Filter, and Selective Reduction Catalytic Converter “help to ensure the reduction of harmful pollutants into the environment and make the Cayenne Diesel compliant with U.S. emissions standards.”

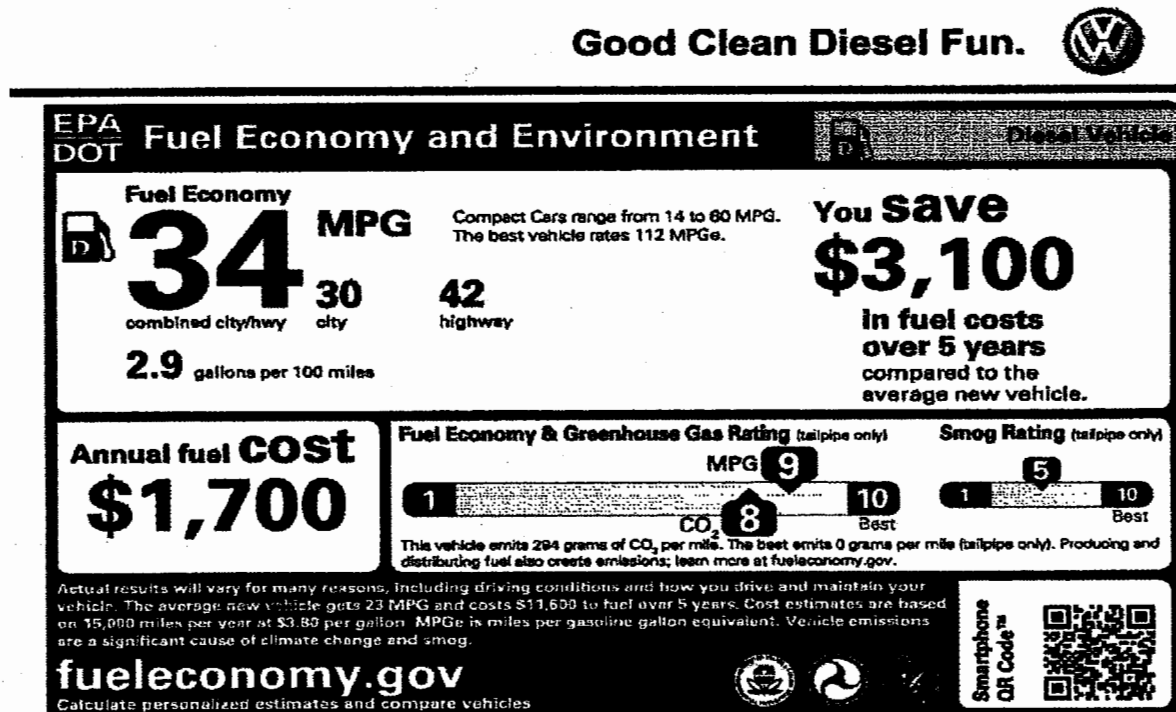
166. Porsche made these false and misleading advertisements across the country, including in Vermont. For example, Porsche targeted direct mailers to Vermont residents.

167. These claims were false and misleading because the Cayennes did not comply with U.S. or Vermont emissions standards. The Cayennes only appeared to be compliant during laboratory emissions testing due to the installation of the Defeat Devices.

4. *Defendants Subjected Buyers and Lessees to a Barrage of False and Misleading Representations and Warranties at the Point of Sale.*

168. In addition to promoting sales through its deceptive advertising campaigns, Defendants subjected actual and potential buyers and lessees to additional material misrepresentations at the point of sale and after.

169. Window stickers affixed to each of the Unlawful Vehicles for sale or lease reflected average “smog ratings” when, in fact, the Unlawful Vehicles’ NO<sub>x</sub> emissions—a major factor in smog ratings—actually exceeded applicable standards by up to 40 times. For example, the representations below were affixed to the window of a 2013 Golf TDI:



170. As required by federal and state law (including Vermont Air Pollution Control Regulation 5-1104 applicable to vehicles delivered for sale or lease in

Vermont), Defendants expressly represented to each purchaser and any subsequent purchaser that every Unlawful Vehicle was “designed, built and equipped” to conform with applicable CARB requirements incorporated into Vermont law, including NOx exhaust emissions standards.

171. Those express representations were false.

**5. *Defendants’ Environmental Message Resonated with Buyers and Lessees of the Unlawful Vehicles Who Sought to Help the Environment, Not Unlawfully Pollute It.***

172. Consumers purchased and leased Unlawful Vehicles based on Defendants’ materially misleading representations that the vehicles would be environmentally friendly and clean, fuel-efficient, and compliant with all applicable emissions standards, and would provide superior performance. Purchasers were willing to pay price premiums of thousands of dollars per car, depending on the model and trim packages.

173. Consumers later expressed their anger and frustration about the fact that the Unlawful Vehicles they purchased and leased violate environmental emissions standards and were not equipped with the high performance “clean” diesel engines that Defendants advertised.

174. As a result of their deceptive statements and their failure to disclose that under normal operating conditions the Unlawful Vehicles emit up to 40 times the allowed levels of NO<sub>x</sub> pollution, Defendants sold the Unlawful Vehicles that have illegally emitted over 45,000 additional tons of NOx in the United States, including in Vermont.

175. In a June 28, 2016, court document filed in multidistrict litigation pending in the United States District Court for the Northern District of California, Defendants admitted to their multi-year deception regarding the Unlawful Vehicles, including that it (i) installed software in 2.0L Unlawful Vehicles that “result[ed] in emissions that exceed EPA-compliant and CARB-compliant levels when the vehicles are driven on the road,” and (ii) failed to disclose the existence of these Defeat Devices in Defendants’ applications to regulators, so that “the design specifications of the 2.0L Unlawful Vehicles, as manufactured, differ materially from the design specifications described” in those applications. See *In re: Volkswagen “Clean Diesel” Marketing, Sales Practices, and Products Liability Litigation*, No. 3:15-md-02672, (N.D. Cal.).

176. If Defendants had not concealed the true effect of the Defeat Devices on the operation of the “clean diesel” engine systems and the true levels of pollutants the engines emitted, they would not have been allowed to sell or lease the Unlawful Vehicles, and the State and its residents would have avoided significant expense and NO<sub>x</sub>-related air pollution.



## **VI. CAUSES OF ACTION**

### **COUNT 1**

#### **Failure to Disclose Auxiliary Emission Control Devices in Certification Applications**

177. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

178. Section 5-1103(a) of the VAPCR prohibits manufacturers from delivering for sale or lease, offering for sale or lease, selling, or leasing, a new 2000 or subsequent model-year passenger car or light-duty truck, unless the vehicle is certified by CARB through issuance of an Executive Order.

179. A CARB Executive Order requires that the applicant provide a list of all AECDs installed on the vehicles. VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) &, 1961.2(d)).

180. An AECD is “any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.” 40 C.F.R. § 86.082-2(b).

181. An element of design is “any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.” 40 C.F.R. § 86.1803-01.

182. Each application for a CARB Executive Order must also include “a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device.” 40 C.F.R. § 86.1844-01(d)(11).

183. The Defeat Devices described above are prohibited AECDs.

184. Defendants failed to disclose the Defeat Devices in their applications for CARB Executive Orders for its test groups for the Unlawful Vehicles delivered for sale or lease, offered for sale or lease, or sold or leased in Vermont, in violation of VAPCR Subchapter XI.

## **COUNT 2**

### **Introducing Uncertified Vehicles For Sale or Lease in Vermont**

185. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

186. A manufacturer shall not deliver for sale or lease, offer for sale or lease, or sell, or lease a new passenger car or light-duty truck model year 2000 or newer unless the vehicle is certified by CARB through issuance of an Executive Order. VAPCR § 5-1103(a).

187. Vehicles are authorized by a CARB Executive Order only if the vehicles are as described in the manufacturer’s application for the CARB Executive

Order "in all material respects." 40 C.F.R. § 86.1848-10(c)(6)); VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) & 1961.2(d)).

188. A motor vehicle containing an AECD that can reasonably be expected to affect the emission controls and is not disclosed or justified in the application for CARB Executive Order does not conform in all material respects with the application, and is therefore not authorized by the CARB Executive Order.

189. A Defeat Device means an AECD that

reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use...

40 C.F.R. § 86.1803-01

190. Defeat Devices are prohibited and motor vehicles equipped with them cannot be certified. 40 C.F.R. §§ 86.1809-01, 86.1809-10.

191. The Defeat Devices installed in the Unlawful Vehicles described are defeat devices as defined in VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) & 1961.2(d)).

192. Because the Unlawful Vehicles contained undisclosed AECDs, including Defeat Devices, contained on-board diagnostics systems that did not work as represented, and did not comply with emission standards, the Unlawful Vehicles differed in material respects from the vehicles described in the applications for CARB Executive Orders for the vehicles, and, therefore the Unlawful Vehicles are not authorized by CARB Executive Orders.

193. With respect to the 2,908 Unlawful Vehicles delivered for sale or lease in Vermont, Defendants violated VAPCR 5-1103(a) by delivering for sale or lease, offering for sale or lease, selling or leasing a vehicle that was not California certified.

### **COUNT 3**

#### **Unlawful Installation of Defeat Devices**

194. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

195. Defeat Devices are prohibited by VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) & § 1961.2(d)).

196. Section 567(b), 10 V.S.A., provides that “no person shall fail to maintain in good working order or remove, dismantle or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control system or mechanism of a motor vehicle and required by rules pursuant to this chapter to be maintained in or on the vehicle.”

197. VAPCR § 5-701, prohibits any person from rendering inoperative an emission control system which has been installed as a requirement of federal or state laws or regulations.

198. Defendants repeatedly violated 10 V.S.A. § 567(b) and VAPCR Subchapter XI, VAPCR § 5-701, by installing the Defeat Devices in each of the 2,908

Unlawful Vehicles delivered for sale or lease, offered for sale or lease, sold or leased in Vermont.

**COUNT 4**

**Offering For Sale or Lease in Vermont Vehicles that Violate NOx Exhaust Emission Standards**

199. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

200. VAPCR § 5-1103(a) prohibits a motor vehicle manufacturer from delivering for sale or lease, offering for sale or lease, selling, or leasing a new vehicle, unless the vehicle complies with California exhaust emission standards, as applicable, set forth at 13 C.C.R. §§ 1961 & 1961.2.

201. Each of the 2,908 2.0L and 3.0L 2009-2014 model-year and 3.0L 2015-2016 model-year Unlawful Vehicles described above, is required to comply with an intermediate NOx exhaust emissions standard of 0.05 grams/mile at 50,000 miles, and a full useful life NOx exhaust emission standard of 0.07 grams/mile at 120,000 miles. VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. § 1961(a)(1)).

202. Each of the 314 2.0L 2015 model-year Unlawful Vehicles is required to comply with a combined emission standard for Non-Methane Organic Gases (“NMOG”) and NOx of 0.125 grams/mile at the vehicle’s full useful life of 150,000 miles. VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. § 1961.2(a)(1)).

203. With respect to each of the 2.0L and 3.0L 2009-2014 model-year and 3.0L 2015-2016 model-year Unlawful Vehicles, Defendants violated VAPCR § 5-

1103(a) by delivering for sale or lease, offering for sale or lease, selling or leasing, vehicles which emitted NOx at rates higher than the applicable exhaust emission standards.

204. With respect to each of the 2.0L 2015 model-year Unlawful Vehicles, Defendants violated VAPCR § 5-1103(a) by delivering for sale or lease, offering for sale or lease, selling or leasing, vehicles which emitted NMOGs and NOx combined at a rate higher than the combined exhaust emission standard of 0.125 grams.

### **COUNT 5**

#### **Violation of Labeling Requirements**

205. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

206. The VAPCR incorporate by reference California requirements that all new cars sold in Vermont bear a label which indicates the relative level of smog forming pollutants emitted by the vehicle.

207. The smog labeling requirements are intended to allow consumers to compare the smog forming emissions of different vehicles and to make informed decisions to purchase less polluting vehicles.

208. For vehicles manufactured before January 1, 2009, California required a Smog Index Label, which listed a Smog Index for the vehicle and a Smog Index for the average new vehicle. 13 C.C.R. § 1965 (incorporating by reference *California*



*Smog Index Label Specifications for 2004 Through 2009 Model Year Passenger Cars and Light-Duty Trucks*).

209. For vehicles manufactured on or after January 1, 2009, California required an Environmental Performance Label in lieu of the Smog Index Label. The Environmental Performance Label was required to list a smog rating on a scale of 1 to 10. 13 C.C.R. § 1965 (incorporating by reference *California Environmental Performance Label Specifications for 2009 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium Duty Passenger Vehicles* (adopted May 2, 2008)).

210. Section 579, 10 V.S.A., which became effective May 29, 2007, required the Secretary to establish by rule a vehicle emission labeling program for new motor vehicles sold or leased in the state of Vermont with a model year of 2010 or later. 10 V.S.A. § 579(a). The labels shall include the vehicle's emissions score, and the label and the score included in the label must be consistent with California motor vehicle greenhouse gas and smog index label requirements. 10 V.S.A. § 579(b). A label that complies with the California labeling requirements meets the requirements of § 579 and the rules adopted thereunder for the content of labels. *Id.*

211. The smog scores on both of the required types of labels reflect, in part, emissions of NO<sub>x</sub>.



212. Due to the use of Defeat Devices, the smog scores stated on the required labels for each of Unlawful Vehicles described above understate the actual relative contribution of the vehicles to smog.

213. With respect to each of the Unlawful Vehicles manufactured on or after January 3, 2009, Defendants violated Subtitle XI of the VAPCR (which incorporates 13 C.C.R. § 1965) by affixing a label that did not state the vehicle's actual smog score, and violated VAPCR § 5-1103(a)(2) by delivering for sale or lease, offering for sale or lease, selling or leasing a vehicle that did not have affixed to it a label reflecting the vehicle's actual smog score.

#### **COUNT 6**

##### **Violation of On-Board Diagnostic System Requirements**

214. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

215. VAPCR Subchapter XI incorporates by reference California on-board malfunction and diagnostic system requirements, known as OBD II, set forth in 13 C.C.R. § 1968.2.

216. Section 5-1103 (a)(5), VAPCR, prohibits a motor vehicle manufacturer from delivering for sale or lease, offering for sale or lease, selling or leasing a new vehicle in Vermont, unless the vehicle complies with the malfunction and diagnostic system requirements of 13 C.C.R. § 1968.2.

217. The OBD II requirements are designed to reduce emissions through improving emission system durability and performance. 13 C.C.R. § 1968.2(a).

218. Pursuant to the OBD II requirements, on-board diagnostic capabilities are incorporated into a vehicle to monitor vehicle components that can affect emissions performance. If a problem or malfunction is detected, a warning light is illuminated on the vehicle's instrument panel, and information is generated that helps technicians identify and fix the issue that has arisen. This permits the vehicle's owner to have the malfunctioning component repaired, thereby remedying issues responsible for increased emissions.

219. Defendants included in each Unlawful Vehicle software that prevented the installed OBD system from detecting the fact that the emission control system was not operating as certified during normal vehicle use.

220. In annual inspections of vehicles in Vermont pursuant to 23 V.S.A. § 1222, VAPCR § 5-703 and the Vermont Periodic Inspection Manual, OBD systems are tested to ensure that they are operating properly and would detect the fact that the emission control system was not operating as certified during normal vehicle use. The OBD systems in the Unlawful Vehicles were intentionally designed to fail to detect when emission control equipment was not operating properly. This caused the Unlawful Vehicles to pass inspection, when in fact if the OBD systems had been designed in accordance with legal requirements they would have detected malfunctioning or ineffective emission control equipment and the Unlawful Vehicles would have failed inspection. Pursuant to 10 V.S.A § 567(b), vehicles failing

inspection are not eligible for registration until the deficiency causing the vehicle to fail inspection is remedied.

221. With respect to each of the Unlawful Vehicles, Defendants violated VAPCR Subchapter XI (incorporating 13 C.C.R. § 1968.2) by installing an OBD system that did not function as required by 13 C.C.R. § 1968.2, and violated VAPCR § 5-1103(a)(5) by delivering for sale or lease, offering for sale or lease, selling or leasing a vehicle for which the OBD system did not function as required by 13 C.C.R. § 1968.2.

#### **COUNT 7**

##### **Violation of Durability Data Vehicle and Emissions Data Vehicle Requirements**

222. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

223. California requirements incorporated into Subchapter XI of the VAPCR require a demonstration of durability. This includes a demonstration of how much emissions will increase during a vehicle's useful life (emission deterioration), and a demonstration concerning whether emissions-related components will operate properly for the vehicle's useful life (emission component durability). *See* 13 C.C.R. § 1961(d) (applicable to the 2009-2014 model-year vehicles), and 13 C.C.R. § 1961.2(d) (applicable to 2015-2016 model-year vehicles).

224. The manufacturer must assign vehicles for which it seeks certification to durability groups, which, based on good engineering judgement, are expected to

have similar emission deterioration and emission component durability characteristics. 40 C.F.R. § 86.1822-01; VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) & 1961.2(d)).

225. For each test group, the manufacturer must select a group of vehicles for testing which is expected to generate the highest level of exhaust emission deterioration. *Id.*

226. By installing the Defeat Devices, Defendants changed the configuration of the vehicles used for the durability determination for each durability group so that they were not of the configuration which is expected to generate the highest level of exhaust emission deterioration, in violation of Subchapter XI of the VAPCR.

227. Similarly, the manufacturer must select for exhaust emission testing a vehicle with a configuration which is expected to be the worst case for exhaust emissions compliance. 40 C.F.R. § 86.1430; VAPCR § 5-1102 & Appendix F (incorporating 13 C.C.R. §§ 1961(d) & 1961.2(d)).

228. By installing the Defeat Devices, Defendants changed the configuration of the test group vehicles selected for exhaust emissions testing so that they were not of a configuration which is expected to be the worst case for exhaust emissions compliance, in violation of Subchapter XI of the VAPCR.

**COUNT 8**

**Violation of Plan Submission Requirements**

229. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

230. VAPCR Subchapter XI incorporates by reference California plan submission requirements set forth in 13 C.C.R. § 1903.

231. Section 1903, 13 C.C.R. provides that any person seeking CARB certification or approval of any device to control emissions from motor vehicles shall submit plans accompanied by reliable test data indicating compliance with the appropriate emission standards and test procedures adopted by CARB.

232. Defendants submitted test data that were not reliable because the tests, among other things, were conducted on vehicles: (i) with undisclosed AECDs, including the Defeat Devices, (ii) that were not the appropriate durability data vehicle; and (iii) that were not the appropriate emissions data vehicle. The plans Defendants submitted did not accurately reflect the level of emissions or compliance with applicable emissions standards.

233. Defendants submittal of test data that were not reliable violated VAPCR Subchapter XI (incorporating 13 C.C.R. § 1903).

**COUNT 9**

**Violations of the Vermont Consumer Protection Act  
for Deceptive Acts**

234. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.

235. The Vermont Consumer Protection Act prohibits unfair methods of commerce and unfair and deceptive acts and practices in commerce. 9 V.S.A. § 2453(a).

236. Defendants engaged in deceptive acts or practices in commerce by:

- a. selling, leasing and offering for sale or lease vehicles that failed to comply with applicable state emissions, certification and/or other regulatory standards;
- b. misrepresenting that the Unlawful Vehicles complied with applicable state emissions, certification and/or other regulatory standards when they did not;
- c. misrepresenting the Unlawful Vehicles as “clean” and “green” despite the fact that they violated applicable state emissions, certification and/or other regulatory standards;
- d. misrepresenting that the Unlawful Vehicles met certain performance measures, but failing to disclose that such measures could only be met when the Defeat Devices were operating;
- e. failing to disclose and/or concealing from consumers the existence of the Defeat Devices, their harmful environmental impact, and the



fact that they were illegal to sell, lease or otherwise place into commerce in Vermont;

- f. falsely and expressly representing to each buyer and lessee of an Unlawful Vehicle that the vehicle was designed, built and equipped to conform at the time of sale to applicable federal and state emissions standards and other applicable federal and state environmental standards; and/or
- g. issuing misleading recalls and/or service actions that failed to provide owners and lessees of the Unlawful Vehicles with a clear description of the defect being serviced.

237. Defendants' misrepresentations and omissions about the Unlawful Vehicles were likely to mislead consumers, and the meaning ascribed by consumers to Defendants' claims about the Unlawful Vehicles was reasonable given the nature of those claims. The misleading effects of Defendants' misrepresentations and omissions were material in that they were likely to affect consumers' decisions to purchase or lease the Unlawful Vehicles.

#### **COUNT 10**

#### **Violations of the Vermont Consumer Protection Act for Unfair Practices**

238. Plaintiff repeats and re-alleges each and every allegation set forth in the preceding paragraphs as though fully set forth herein.



239. Defendants' successful efforts to sell, lease or register the Unlawful Vehicles were accomplished via the submission of unreliable and inaccurate data to regulatory authorities which prevented the authorities from discovering:

- a. the existence of the Defeat Devices;
- b. that the Unlawful Vehicles failed to satisfy Vermont's emission control requirements
- c. falsified Manufacturers Certificate of Origins;
- d. falsified under the hood Vehicle Emission Control Information Labels;
- e. that the vehicles emitted NOx at illegal rates;
- f. that the vehicles' actual relative contribution to smog was understated;
- g. that Defendants had installed an OBD system that did not function as required; and
- h. that they were unable to make accurate durability determinations.

240. As a result of the foregoing Defendants engaged in unfair acts or practices in commerce, in violation of the Vermont Consumer Protection Act, 9 V.S.A. § 2453(a), which were unlawful and unscrupulous and caused substantial injury to consumers with no off-setting benefit.

## VII. RELIEF SOUGHT

WHEREFORE, Plaintiff State of Vermont respectfully requests judgment in its favor:

1. Adjudging Defendants liable for each of the violations of law alleged in Counts 1-10, above;

2. Ordering Defendants to pay civil penalties to the State for each of the violations of law alleged in Counts 1-10, above;

3. Requiring Defendants to abate and mitigate the Unlawful Vehicles' emissions of NO<sub>x</sub> and other pollutants in excess of applicable emission standards;

4. Permanently enjoining Defendants, and, as appropriate, their agents, servants, employees, and all persons in active concert or participation with them, from future violations of the VAPCR and the Vermont Consumer Protection Act, including:

- a. failing to disclose AECDs in certification applications;
- b. installing defeat devices in vehicles;
- c. failing to comply with labeling, on-board diagnostic system, durability data vehicle, emission data vehicle, and plan submission requirements;
- d. delivering for sale or lease, offering for sale or lease, selling or leasing in Vermont vehicles which are not covered by a CARB Executive Order, do not comply with applicable NO<sub>x</sub> and/or NO<sub>x</sub>/NMOG

emission standards, do not comply with labeling requirements, and/or  
do not comply with on-board diagnostic system requirements; and

e. engaging in unfair and deceptive acts and practices business practices.

5. Requiring Defendants to provide restitution or other appropriate relief  
to Vermont consumers who purchased or leased Unlawful Vehicles, including:

- a. promptly repairing Unlawful Vehicles in the Vermont in a manner that  
removes or permanently disables any Defeat Device and ensuring  
compliance with all applicable emissions standards;
- b. paying the consumer restitution and damages for the economic harm  
suffered as a result of Defendants' unfair or deceptive conduct; and
- c. providing a warranty that the Unlawful Vehicle will conform to all  
applicable emissions standards.

6. Requiring Defendants to disgorge to the State of Vermont all profits  
obtained as a result of their violations of the Vermont Consumer Protection Act;

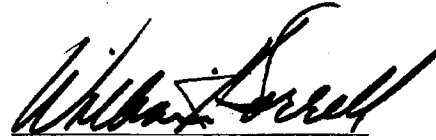
7. Awarding investigative and litigation costs and fees to the State of  
Vermont; and

8. Awarding such other and further relief as the Court may deem  
appropriate.

**Dated: September 8, 2016.**

**STATE OF VERMONT**

**By:**



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## Appendix 1

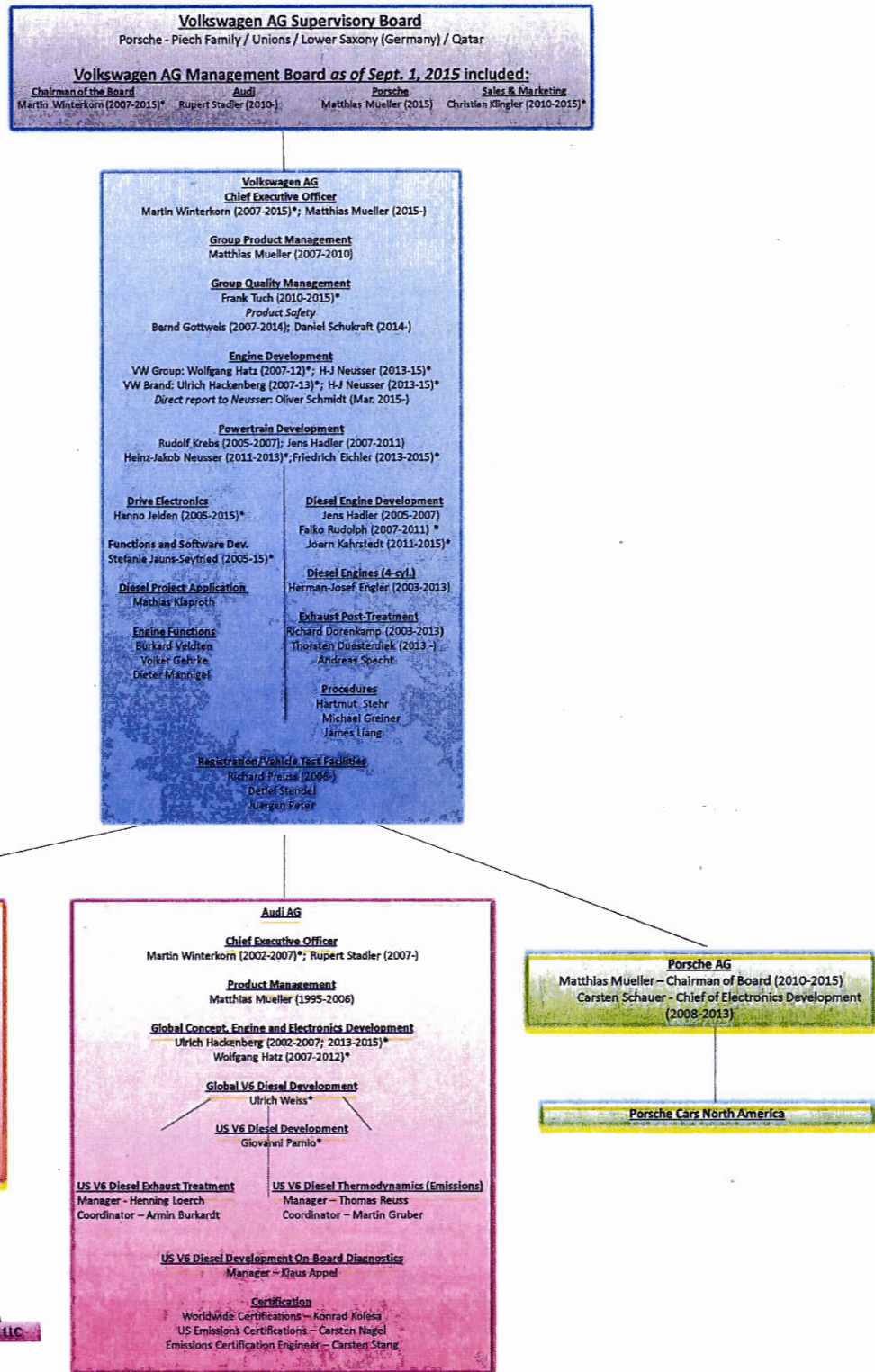
### Index of Defined Terms

Aconym	Term
2.0L	2.0-liter model engines
3.0L	3.0-liter model engines
ANR	Vermont Agency of Natural Resources
AoA	Audi of America, LLC, also known as Audi of America, Inc. or Audi of America
Audi AG	Audi Aktiengesellschaft
AECD	Auxiliary Emissions Control Device
CARB	California Air Resources Board
Cayennes	Porsche's diesel engine Cayenne
DEF	Diesel Exhaust Fluid
Defeat Device(s)	illegal software which allows vehicles to circumvent applicable emissions standards
DMV	Vermont Department of Motor Vehicles
DPF	Diesel Particulate Filter
Dyno	Dynamometer/ Treadmill used in lab emissions testing
ECM	Electronic Control Module
EEO	Engineering and Environmental Office, Volkswagen Group of America, Inc.
EI-AECD	Emission Increasing-Auxiliary Emission Control Device
ECU(s)	Engine Control Units
EPA	United States Environmental Protection Agency
EGR	Exhaust Gas Recirculation
Gen 1	Generation 1/EA 189
Gen 2	Generation 2/EA 189
Gen 3	Generation 3/EA 288
ICCT	International Council on Clean Transportation
ICCT Report	International Council on Clean Transportation Report
I & M	Inspection & Maintenance
LEV	Low Emission Vehicle standards (1994-2003)
LEV II	Low Emission Vehicle standards (2004-2005)
LEV III	Low Emission Vehicle standards (2012- )
LNT	Lean Trap
MCO	Manufacturer's Certificate of Origin
MY	Model Year
NOx	Nitrogen Oxides
OBD	On-Board Malfunction and Diagnostics System
PCNA	Porsche Cars of North America, Inc.
PEMS	Portable Emissions Measurement Systems
Porsche	PCNA and Porsche AG collectively
Porsche AG	Dr. Ing. h.c. F. Porsche d/b/a Porsche Aktiengesellschaft
SCR	Selective Catalytic Reduction
NMOG	Non-Methane Organic Gases
NOV 9-18-2015	EPA's Notice of Violation issued to VW AG, Audi AG, and VWGoA
NOV 11-2-2016	EPA's Notice of Violation issued to VW AG, Audi AG, Porsche AG, VWGoA and PCNA
Secretary	Vermont Secretary of the Agency of Natural Resources
Statutory Warranty	Vermont Emissions Warranty also known as California Emissions Warranty
TDI	Turbocharged Direct Injection
Treadmill	Treadmill test/dynamometer
Unlawful Vehicles	The Diesel Vehicles with Unlawful Defeat Devices (see Table 1)
Volkswagen Group	"Volkswagen Group" comprises twelve brands: Volkswagen Passenger Cars, Audi, SEAT, ŠKODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN.
VAPCR	Vermont Air Pollution Control Regulations
VW AG	Volkswagen Aktiengesellschaft
VW Chattanooga	Volkswagen Group of America Chattanooga Operations, LLC
VWGoA	Volkswagen Group of America, Inc.
WVU	West Virginia University Center for Alternative Fuels, Engines & Emissions



## Appendix 2

## Corporate Entities and Key Executives and Employees



\* Indicates that an employee has either resigned, been suspended, or been terminated from the Volkswagen Group since the September 2015 revelations that Volkswagen employed defeat devices on its US-market diesel engines.

Appendix 3  
Index of Referenced Defendants' Officers and Employees

Last Name	First Name	Defendant Entity	Department, Unit or Board
Al-Abdulla	Hussain Ali, Dr.	VWAG	Member, VWAG Supervisory Board
Appel	Klaus	Audi AG	Audi AG Manager, US V6 Diesel Development on-Board Diagnostics
Aurenz	Helmut, Senator	Audi AG	Member, Audi AG Supervisory Board (stockholder representative)
Baetge	Bjoern	VWGoA	VWGoA Treasurer
Bakar	Akbar Al	VWAG	Member, VWAG Supervisory Board
Beamish	Michael	VWGoA	Member, VWGoA Board of Directors and VWGoA Executive Vice President, Human Resources
Brabec	Filip	AoA	Director of Product Management
Bures	Jan	VWGoA	VWGoA Executive Vice President, Group After Sales and Services
Burkardt	Armin, Dr.	Audi AG	Audi AG Coordinator, U.S. V6 Diesel Exhaust Treatment (Emissions)
Creif	Larry	VWGoA	VWGoA Assistant Treasurer
Dahlheim	Christian, Dr.	VWGoA	Member, VWGoA Board of Directors; also VWGoA Executive Vice President
Diess	Herbert, Dr.	VWAG	Member, VWAG Board of Management
Dorenkamp	Richard	VWAG	VWAG Head of Ultra-Low Emissions Engines and Exhaust Post-Treatment within Diesel Engine Development.
Duesterdiek	Thorsten	VWAG	VWAG Head of Ultra-Low Emissions Engines and Exhaust Post-Treatment within Diesel Engine Development
Duke	Kevin	VWGoA	VWGoA Assistant Secretary
Dürhelmer	Wolfgang	VWGoA	Member, VWGoA Board of Directors
Eichler	Friedrich	VWAG	Head of VWAG's Powertain Development
Engler	Herman-Josef	VWAG	Head of VWAG Passenger Car Engines - Diesel Engine Development
Erb	Matthias, Dr.	VWGoA	VWGoA Executive Vice President, Engineering and Planning
Falkengren	Annika	VWAG	Member, VWAG Supervisory Board
Fischer	Hans-Peter, Dr.	VWAG	Member, VWAG Supervisory Board
Freltag	Achim, Dr.	VWAG	Testing Engineer, VWAG Diesel Development
Freudenberger	Moritz	VWGoA/Audi	VWGoA Emissions Testing and Software engineer
Fritsch	Uwe	VWAG	Member, VWAG Supervisory Board
Fröhlich	Babette	VWAG	Member, VWAG Supervisory Board
Geanacopoulos	David	VWGoA	Member, VWGoA Board of Directors and VWGoA Executive Vice President, General Counsel Dept.: VWAG Diesel Engine Functions within Powertain Electronics' Functions and Software Development
Gehrke	Volker	VWAG	
Gillies	Mark	VWAG	VW Public Relations
Goeller	Stephanie	VWGoA	VWGoA Assistant Secretary, Intellectual Property
Gottweis	Bernd	VWAG	Head of Product Safety within VWAG Quality Management.
Greiner	Michael	VWAG	VWAG Diesel Development Dept.: Procedures & Exhaust Post-Treatment
Gruber	Martin	Audi AG	Audi AG Coordinator of Audi Diesel Engine Thermodynamics Department
Guerreiro	Mario	VWGoA	VWGoA Executive Vice President, Group Communication
Hackenberg	Ulrich, Prof.	Audi AG/VWAG	Senior Engineering, Engine Development, and Member, Audi AG's Board of Management Director of Automotive Emissions Programs and VWAG in Diesel Engine Development, and Head of VWAG's Powertain Development
Hadler	Jens, Dr.	VWAG	
Hahn	Carl H., Prof.	Audi AG	Honorary Chairman of Audi AG Supervisory Board
Hahn	Christopher	VWGoA	VWGoA Assistant Secretary, Real Estate
Handschel	Uwe	Audi AG	Executive Manager, Ingolstadt Certification Group
Harrison	Scott	VWGoA	VWGoA Assistant Secretary, Dealer Matters
Hart	Robert	VWGoA EEO	Certification Analyst
Hathaway	Jed	VWGoA	VWGoA Assistant Secretary, Vehicle Administration
Hatz	Wolfgang	Audi AG/VWAG/ Porsche AG	Head of Audi AG Powertrain Department (engines and transmissions); previously held same role at Volkswagen and the top engineering job at Porsche AG.
Heimann	Ulrich	VWGoA	Member, VWGoA Board of Directors
Heizmann	Jochem, Prof.	VWAG	Member, VWAG Board of Management



Appendix 3  
Index of Referenced Defendants' Officers and Employees

Heming	Mattias	VWAG	Assistance and Special Tasks Line Units Development
Hennard	Michael	VWGoA EEO	VWGoA EEO Senior Manager Emissions Compliance
Hofmann	Jörg	VWAG	Member, VWAG Supervisory Board
Horn	Johann	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Horn	Michael	VWGoA	Former CEO and President of VWGoA; Member, VWGoA Board of Directors
Huber	Berthold	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Hück	Uwe	VWAG	Member, VWAG Supervisory Board
Jauns-Seyfried	Stefanie	VWAG	VWAG Head of Functions and Software Development within Powertrain Electronics
Jelden	Hanno	VWAG	VWAG Head of Drive Electronics
Johnson	Stuart	VWGoA EEO	General Manager for VWGoA Engineering and Environmental Office, Diesel Certification Dept.
Kata	Leonard	VWGoA EEO	Senior Certifications Manager, Emission Regulations and Certification for Diesel Certification
Keogh	Scott	VWGoA/AoA	Member, VWGoA Board of Directors and President of AoA
Kiesling	Louise, Dr.	VWAG	Member, VWAG Supervisory Board
Kilian	Gunnar	VWGoA	Member, VWGoA Board of Directors
Kissling	Karlheinz	Audi AG	Certification Engineer
Klaproth	Mathias	VWAG	VWAG Head of Diesel System Applications within Powertrain Electronics
Klingler	Christian	VWAG	VWAG Management Board, Sales & Marketing
Klotz	Rolf	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Koch	Christian	VWGoA	Member, VWGoA Board of Directors
Kolesa	Konrad, Dr.	Audi AG	Audi AG Worldwide Certifications, US V6 Diesel Development; Executive Manager, Emission Service and Certification
Kössler	Peter	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Kramer	Andy	Audi AG	Certification Engineer
Krause	Norbert	VWGoA EEO	Director, Engineering and Environmental Office (EEO)
Krebs	Carsten	VWGoA	Director at VWGoA.
Krebs	Rudolf	VWAG	Head of VWAG's Powertrain Development
Kuehlwein	Joerg	Porsche AG	Former Audi AG employee
Liang	James	VWAG/VWGoA	Engineer, VWAG, Diesel Engine Development Department.; also conducted tests for VWGoA
Lies	Olaf	VWAG	Member, VWAG Supervisory Board
Loersch	Henning	Audi AG	Audi AG Director of Exhaust Gas Aftertreatment; Manager of US V6 Diesel Exhaust Treatment (Emissions)
Mannigel	Dieter	VWAG	Dept.: VWAG in Diesel Engine Functions within Powertrain Electronics' Functions and Software Development
Martens	Bernd, Dr.	Audi AG	Member, Audi AG Board of Management
McNabb	Mark	VWGoA/VoA	VWGoA Executive Vice President & Chief Operating Officer of Volkswagen of America, Inc.
Meine	Hartmut	VWAG	Member, VWAG Supervisory Board
Mosch	Peter	VWAG/Audi AG	Member, VWAG Supervisory Board; on Audi AG Supervisory Board (employee representative)
Mueller (Müller)	Matthias	VWAG/Audi AG/Porsche AG	Audi Product Management; Chairman of VWAG Management Board, Chairman of Audi AG Supervisory Board; Chairman of Management Board for Porsche; replaced Martin Winterkorn as VWAG CEO.
Nagel	Carsten	Audi AG	Engineer; alerted colleagues at VWAG and VWGoA's EEO of the WVU ICCT Report; Executive Manager, Neckarsulm Certification Group
Neumann	Horst, Prof.	VWAG/Audi AG/VWGoA	Member, VWAG Board of Management; stockholder representative, Audi AG Supervisory Board member, VWGoA Board of Directors
Neusser	Heinz-Jakob	VWAG	VWAG in Engine Development; Head of VWAG's Powertrain Development
Osterloh	Bernd	VWAG	Member, VWAG Supervisory Board
Pamio	Giovanni	Audi AG	General Manager, Audi AG
Patta	Sebastian	VWGoA	Member, VWGoA Board of Directors
Peter	Juergen	VWAG	Manager, Emission Certification & Testing; VWAG Engineer, Registration/Vehicle Test Facilities
Pläch	Hans Michel, Dr.	VWAG/Audi AG	Member, VWAG Supervisory Board; Member, Audi AG Supervisory Board (stockholder representative)
Porsche	Ferdinand Oliver, Dr. Jur.	VWAG/Audi AG	Member, VWAG Supervisory Board; Member, Audi AG Supervisory Board (stockholder representative)
Porsche	Wolfgang, Dr.	VWAG/Audi AG	Member, VWAG Supervisory Board; stockholder representative, Audi AG Supervisory Board

Appendix 3  
Index of Referenced Defendants' Officers and Employees

Pötsch	Hans Dieter, Dipl.	VWAG/Audi AG	Chairman, VWAG Supervisory Board; Member, Audi AG Supervisory Board (stockholder representative)
Preuss	Richard	VWAG	Executive Manager, Emission Certification & Testing; VWAG Registration/Vehicle Test Facilities
Rank	Norbert	Audi AG	Audi AG Supervisory Board (employee representative)
Rech	Lothar	Audi AG	Certification Engineer
Reineke	Dennis	VWAG	Certification Analyst
Renschler	Andreas	VWAG	Member, VWAG Board of Management
Reuss	Thomas	Audi AG	Audi AG Manager, US V6 Diesel Thermodynamics
Rosso	Mark Del	VWGoA/AoA	VWGoA Chief Operating Office, and CEO of Audi of America, Inc.
Rudolph	Falko	VWAG	VWAG Head of Diesel Engine Development
Sanz	Francisco Javier Garcia, Dr.	VWAG/Audi AG	Member, VWAG Board of Management; Member, Audi AG Supervisory Board (stockholder representative); Member, VWGoA Board of Directors
Schauer	Carsten	Porsche AG	Chief of Porsche Electronics Development
Schlagbauer	Jörg	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Schmidt	Enrico	Audi AG	Head of Technical Services Diagnostics
Schmidt	Oliver	VWGoA EEO/ VWAG	General Manager of the EEO office and VWAG Engine Development
Schueller	Stefanie	VWGoA	VWGoA Executive Vice President, Group Quality
Schukraft	Daniel	VWAG	VWAG Product Safety in Group Quality Management.
Schwanke	Peter	VWAG	Manager, Emission Certification & Testing
Shantl	Abdallah	VWGoA	VWGoA Executive Vice President and Group Chief Information Officer—Region Americas
Sigi	Thomas, Prof.	Audi AG	Member, Audi AG Board of Management
Späth	Helmut	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Specht	Andreas	VWAG	Employee, VWAG, Diesel Engine Development Department.
Stadler	Rupert, Prof.	VWAG/Audi AG	Member, VWAG Board of Management, Chairman, Audi AG Board of Management and CEO (since 2007)
Stang	Carsten	Audi AG	Audi AG Emissions Certification Engineer
Stehr	Hartmut	VWAG	Employee, VWAG, Diesel Engine Development Department.
Stendel	Detlef	VWAG	Executive Manager, Emission Certification & Testing; Works for VWAG in Registration/Vehicle Test Facilities
Strotbek	Axel	Audi AG	Member, Audi AG Board of Management
Thomas	Susanne	VWGoA EEO	OBD Regulatory Expert
Tierney	Shannon	VWGoA	VWGoA Assistant Secretary, Licensing
Tolep	Lawrence	VWGoA	VWGoA Assistant Treasurer
Tuch	Frank	VWAG	Head of VWAG Quality Management and a direct reporter to VWAG CEO and Management Board Chairman, Martin Winterkorn.
Ulbrich	Thomas	VWGoA	Member, VWGoA Board of Directors
Veldten	Burkard	VWAG	Employee, Dept.: Diesel Engine Functions within Powertrain Electronics' Functions and Software Development.
Vieser	Steffen	Audi AG	Head OBD Development
Voggenreiter	Dietmar, Dr.	Audi AG	Member, Audi AG Board of Management
Vycital	Jan	VWGoA	Member, VWGoA Board of Directors; also VWGoA Executive Vice President and Chief Financial Officer
Wäcker	Max	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Waltl	Hubert, Prof.	Audi AG	Member, Audi AG Board of Management
Wankel	Sibylle	Audi AG	Member, Audi AG Supervisory Board (employee representative)
Weil	Stephan	VWAG	Member, VWAG Supervisory Board
Weiss	Ulrich	Audi AG	Head of Global V6 Diesel Development.
Winterkorn	Martin	VWAG	CEO of Audi AG, 2002 to 2007; CEO of VWAG in 2007-2015; Chairman of VWAG's Board of Management.
Witter	Frank	VWAG	Member, VWAG Board of Management
Wolf	Stephan	VWAG	Member, VWAG Supervisory Board
Zwiebler	Thomas	VWAG	Member, VWAG Supervisory Board